STIC Search Report
Biotech-Chem Library

STIC Database Tracking Number: 157128

TO: Andrew D Kosar **Location: rem/3C04/3C18** **Art Unit: 1654** **Thursday, July 14, 2005** **Case Serial Number: 10/088540**	**From: Barb O'Bryen** **Location: Biotech-Chem Library** **Remsen 1a69** **Phone: 571-272-2518** **barbara.obryen@uspto.gov**

Search Notes

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Access DB# 157128

SEARCH REQUEST FORM

Scientific and Technical Information Center

Requester's Full Name: **Andrew D. Kosar** Examiner# : **80341** Date: **7/14/05** (previously submitted 6/21/05)

Art Unit: **1654** Phone Number: **(571)272-0913** Serial Number: **10/088,540**

Mail Box and Bldg/Room Location: **Mail: REM 3c18** Results Format Preferred (circle): **Paper** Disk E-mail
Office: REM 3c04

If more than one search is submitted, please prioritize searches in order of need.

****

Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc., if known. Please attach a copy of the cover sheet, pertinent claims, and abstract.

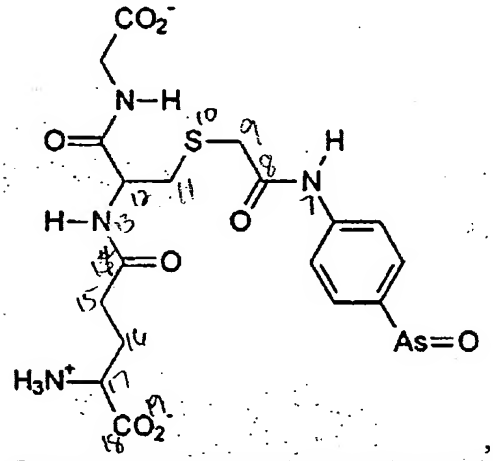
Title of Invention: A substantially cell membrane impermeable compound and use thereof

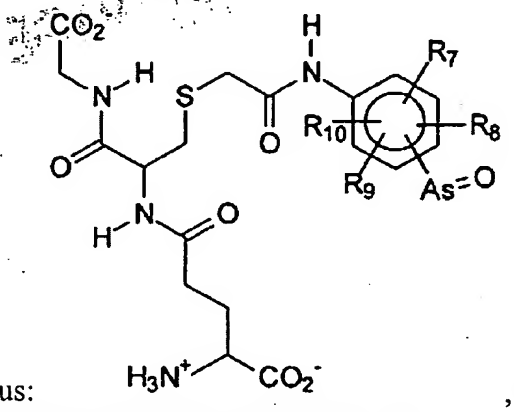
Inventors (please provide full names): Phillip John Hogg, Neil Donoghue

Earliest Priority Filing Date: 09/20/2000 (PCT)

For Sequence Searches Only Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.

Please search the following compound:





, which is of the genus:

, where R_7 to R_{10} are independently selected from the group consisting of: hydrogen, C_1-C_5 alkyl, C_6-C_{12} aryl, halogen, hydroxy, amino, nitro, carboxy, C_1-C_5 alkoxy, $-OS(O)_2R_3$ or $-NHC(O)CH_2Q$ wherein Q is halogen, $-OS(O)_2CH_3$, $-OS(O)_2C_6H_5$ or $-OS(O)_2$-p tolyl.

The broad genus claim from which this depends is attached.

Christopher Low
Rush Search Approved
14 Jul 2005

****

STAFF USE ONLY

Searcher: BSB
Searcher Phone:
Searcher Location:
Date Searcher Picked Up: 7-14
Date Completed: 7-15-05
Searcher Prep & Review Time: 20
Clerical Prep Time:
Online Time: 13

Type of search

NA Sequence (#)
AA Sequence (#)
Structure (#) 1
Bibliographic
Litigation
Full Text
Patent Family
Other

Vendors and cost where applicable

STN 270
Dialog
Questel/Orbit
Dr. Link
Lexis/Nexis
Sequence System
WWW/Internet
Other (specify)

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=> fil reg; d stat que l16; fil capl uspatf toxcenter; s l16
FILE 'REGISTRY' ENTERED AT 12:21:56 ON 14 JUL 2005
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
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Property values tagged with IC are from the ZIC/VINITI data file
provided by InfoChem.

STRUCTURE FILE UPDATES:   13 JUL 2005  HIGHEST RN 854992-86-2
DICTIONARY FILE UPDATES:  13 JUL 2005  HIGHEST RN 854992-86-2

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH JANUARY 18, 2005

  Please note that search-term pricing does apply when
  conducting SmartSELECT searches.

**********************************************************************
*                                                                    *
* The CA roles and document type information have been removed from *
* the IDE default display format and the ED field has been added,    *
* effective March 20, 2005.  A new display format, IDERL, is now     *
* available and contains the CA role and document type information. *
*                                                                    *
**********************************************************************

Crossover limits have been increased.  See HELP CROSSOVER for details.

Experimental and calculated property data are now available. For more
information enter HELP PROP at an arrow prompt in the file or refer
to the file summary sheet on the web at:
http://www.cas.org/ONLINE/DBSS/registryss.html

L14
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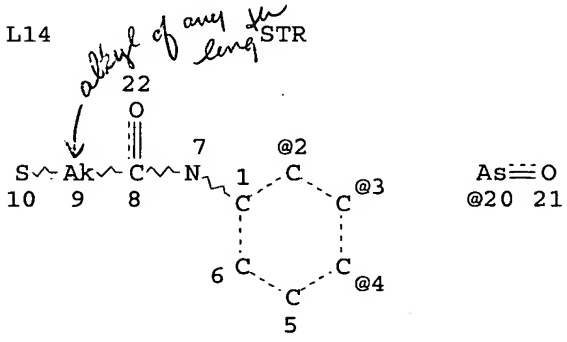


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VPA 20-2/3/4 U
NODE ATTRIBUTES:
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS  13

STEREO ATTRIBUTES: NONE
L16          23 SEA FILE=REGISTRY SSS FUL L14
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Searched by Barb O'Bryen, STIC 2-2518

100.0% PROCESSED 182 ITERATIONS 23 ANSWERS
SEARCH TIME: 00.00.01

FILE 'CAPLUS' ENTERED AT 12:21:56 ON 14 JUL 2005
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
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FILE 'USPATFULL' ENTERED AT 12:21:56 ON 14 JUL 2005
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FILE 'TOXCENTER' ENTERED AT 12:21:56 ON 14 JUL 2005
COPYRIGHT (C) 2005 ACS

L19 23 L16

=> dup rem l19
PROCESSING COMPLETED FOR L19
L20 15 DUP REM L19 (8 DUPLICATES REMOVED)
ANSWERS '1-13' FROM FILE CAPLUS
ANSWERS '14-15' FROM FILE USPATFULL

=> d ibib ed abs hitstr 1-15; fil hom

L20 ANSWER 1 OF 15 CAPLUS COPYRIGHT 2005 ACS on STN DUPLICATE 1
ACCESSION NUMBER: 2004:414744 CAPLUS
DOCUMENT NUMBER: 140:417978
TITLE: Identification of inducers of the mitochondrial permeability transition in proliferating cells, and therapeutic use
INVENTOR(S): Hogg, Philip John
PATENT ASSIGNEE(S): Unisearch Limited, Australia
SOURCE: PCT Int. Appl., 100 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004042079	A1	20040521	WO 2003-AU1483	20031107

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RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: AU 2002-952526 A 20021107
AU 2003-906109 A 20031105
OTHER SOURCE(S): MARPAT 140:417978

ED Entered STN: 21 May 2004

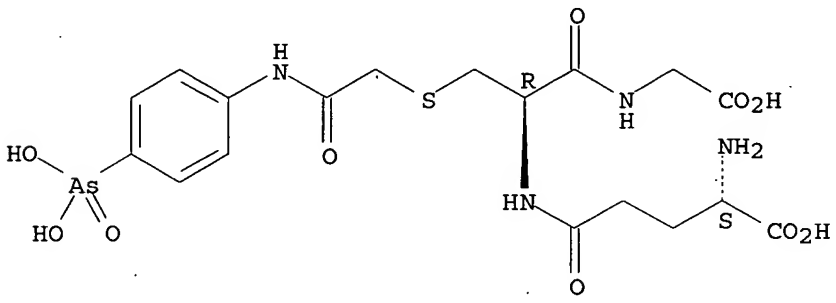
AB The invention discloses a method for identifying a compound which induces the mitochondrial permeability transition (MPT) in proliferating cells. The process comprises contacting a cell or cell extract with a compound, determining whether the compound binds to adenine nucleotide translocator (ANT), and determining whether the compound selectively induces the MPT in proliferating cells. The inducers may be used to e.g. induce apoptosis and inhibit angiogenesis.

IT **331722-77-1P**
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(identification of inducers of mitochondrial permeability transition in proliferating cells, and therapeutic use)

RN 331722-77-1 CAPLUS

CN Glycine, L-γ-glutamyl-S-[2-[(4-arsonophenyl)amino]-2-oxoethyl]-L-cysteinyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

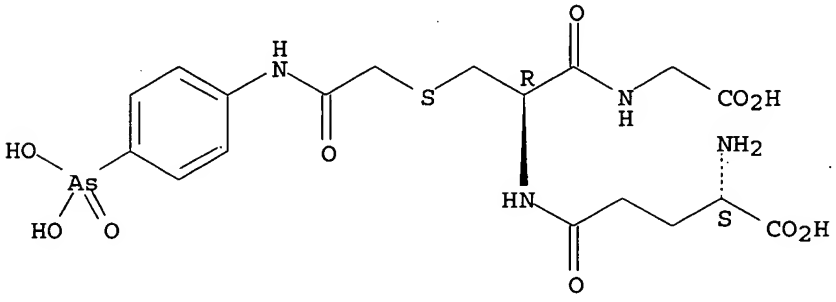


IT **331722-77-1DP**, fluorescein conjugated derivs.
RL: SPN (Synthetic preparation); PREP (Preparation)
(identification of inducers of mitochondrial permeability transition in proliferating cells, and therapeutic use)

RN 331722-77-1 CAPLUS.

CN Glycine, L-γ-glutamyl-S-[2-[(4-arsonophenyl)amino]-2-oxoethyl]-L-cysteinyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L20 ANSWER 2 OF 15 CAPLUS COPYRIGHT 2005 ACS on STN DUPLICATE 2
ACCESSION NUMBER: 2003:376654 CAPLUS

DOCUMENT NUMBER: 138:390922
TITLE: Arsenide compound system for selective targeting of apoptotic cells
INVENTOR(S): Hogg, Philip John
PATENT ASSIGNEE(S): Unisearch Limited, Australia
SOURCE: PCT Int. Appl., 85 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
WO 2003039564	A1	20030515	WO 2002-AU1523		20021108
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RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG					
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EP 1453525	A1	20040908	EP 2002-774165		20021108
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, SK					
JP 2005511598	T2	20050428	JP 2003-541855		20021108
US 2005101524	A1	20050512	US 2003-494822		20021108
PRIORITY APPLN. INFO.:			AU 2001-8746	A	20011108
			WO 2002-AU1523	W	20021108

OTHER SOURCE(S): MARPAT 138:390922
ED Entered STN: 16 May 2003
AB The invention discloses a method of selectively targeting an active agent (or agent capable of becoming an active agent) to apoptotic cells in a vertebrate, comprising administering to the vertebrate a system comprising an arsenoxide (or arsenoxide equivalent) compound and the agent, wherein the system selectively targets apoptotic cells. Preparation of e.g. 4-[N-(S-glutathionylacetyl)amino]phenylarsenoxide is described.
IT **525549-70-6**
RL: DGN (Diagnostic use); BIOL (Biological study); USES (Uses)
(arsenide compound system for selective targeting of apoptotic cell)
RN 525549-70-6 CAPLUS
CN Glycine, N-[6-[[6-[[5-[(3aS,4S,6aR)-hexahydro-2-oxo-1H-thieno[3,4-d]imidazol-4-yl]-1-oxopentyl]amino]-1-oxohexyl]amino]-1-oxohexyl]-L-γ-glutamyl-S-[2-[(4-arsonophenyl)amino]-2-oxoethyl]-L-cysteinyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

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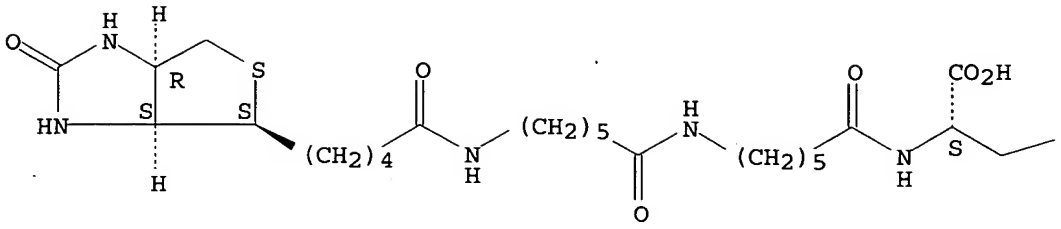

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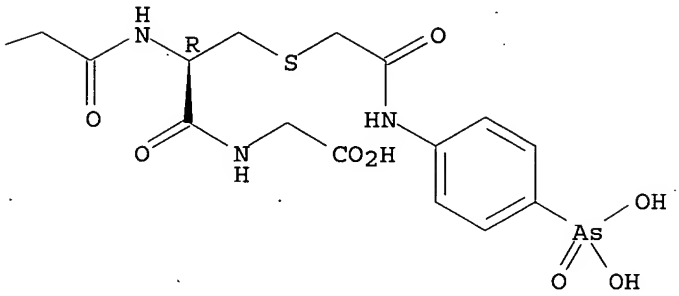
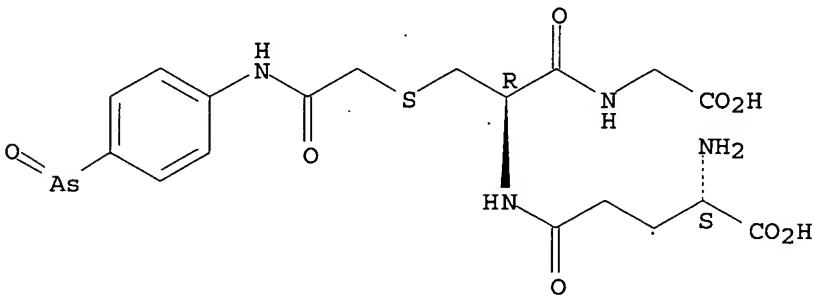


IT **331722-70-4P**
RL: DGN (Diagnostic use); PAC (Pharmacological activity); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(arsenide compound system for selective targeting of apoptotic cell)
RN 331722-70-4 CAPLUS
CN Glycine, L-γ-glutamyl-S-[2-[(4-arsenosophenyl)amino]-2-oxoethyl]-L-cysteinyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



IT **331722-78-2P 331722-79-3P 331722-80-6P**
525549-67-1P 525549-69-3P
RL: DGN (Diagnostic use); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
(arsenide compound system for selective targeting of apoptotic cell)

RN 331722-78-2 CAPLUS
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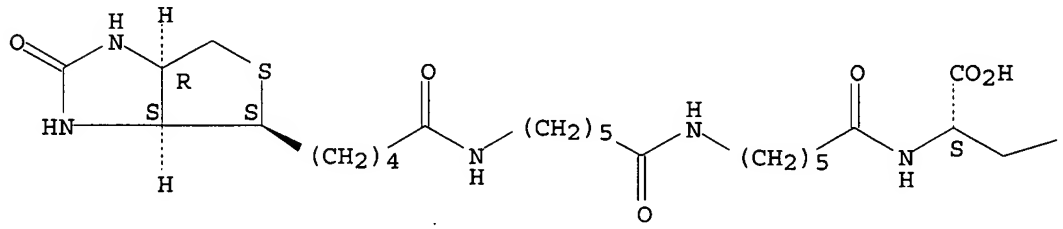
Absolute stereochemistry.

PAGE 1-A



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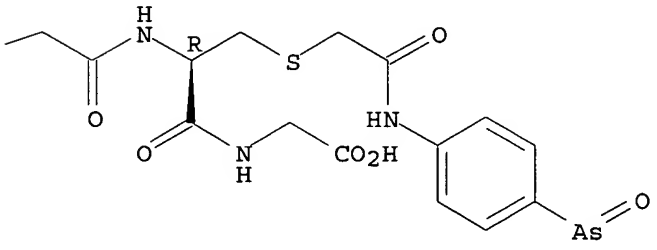

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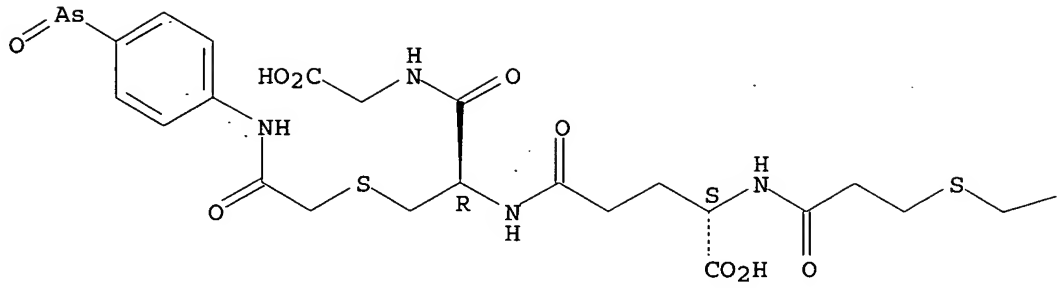
Absolute stereochemistry.

PAGE 1-A



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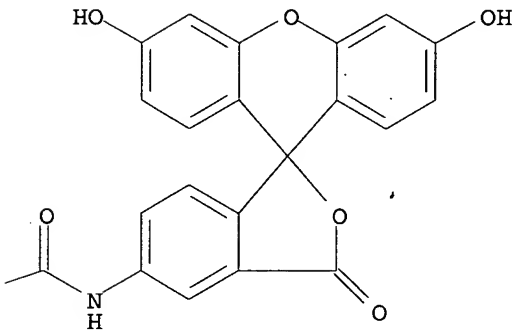

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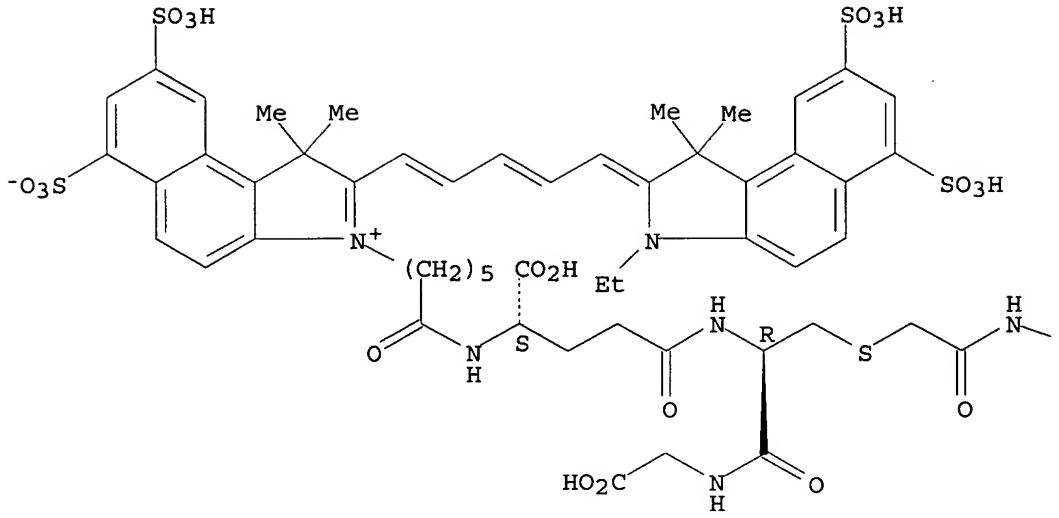
CN Glycine, N-[6-[2-[5-(3-ethyl-1,3-dihydro-1,1-dimethyl-6,8-disulfo-2H-benz[e]indol-2-ylidene)-1,3-pentadienyl]-1,1-dimethyl-6,8-disulfo-1H-benz[e]indolio]-1-oxohexyl]-L-γ-glutamyl-S-[2-[(4-arsenosophenyl)amino]-2-oxoethyl]-L-cysteinyl-, inner salt (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry unknown.

PAGE 1-A



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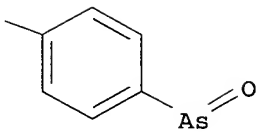
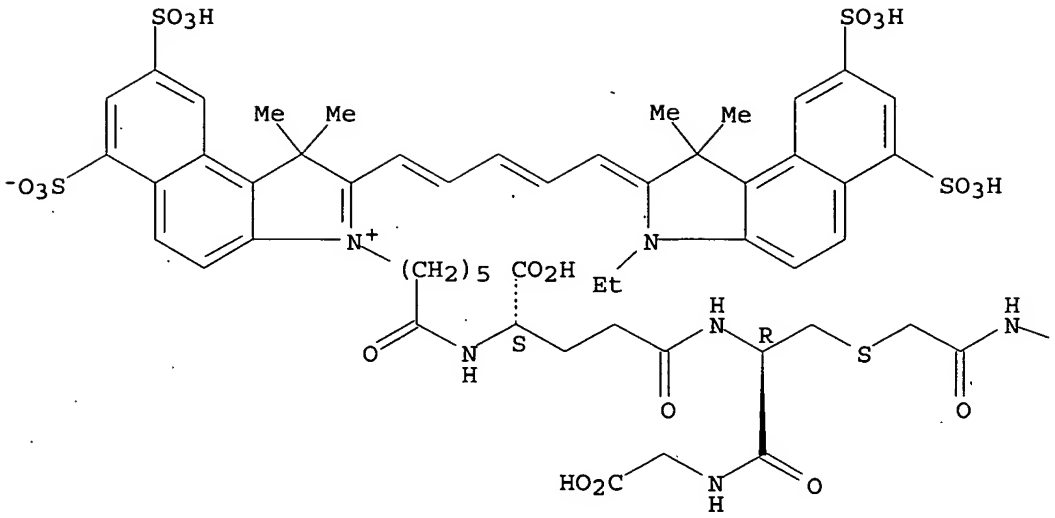


RN 525549-67-1 CAPLUS
CN Glycine, N-[6-[2-[5-(3-ethyl-1,3-dihydro-1,1-dimethyl-6,8-disulfo-2H-benz[e]indol-2-ylidene)-1,3-pentadienyl]-1,1-dimethyl-6,8-disulfo-1H-benz[e]indolio]-1-oxohexyl]-L-γ-glutamyl-S-[2-[(4-arsonophenyl)amino]-2-oxoethyl]-L-cysteinyl-, inner salt (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry unknown.

PAGE 1-A



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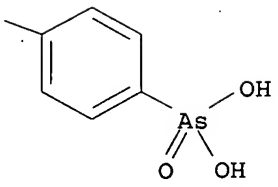
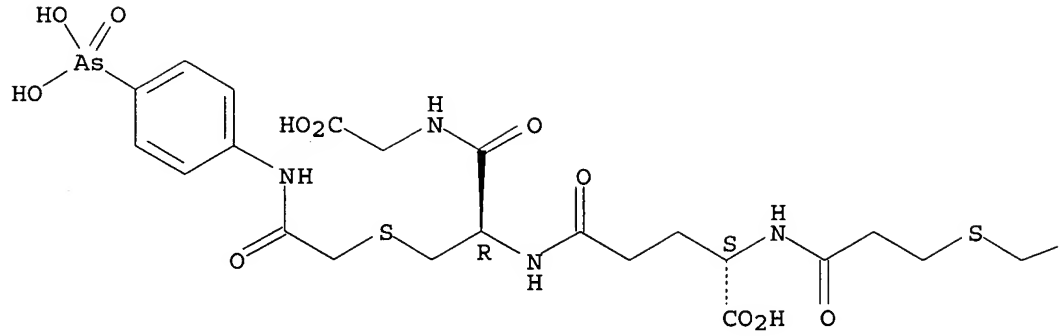


RN 525549-69-3 CAPLUS
CN Glycine, N-[3-[[2-[(3',6'-dihydroxy-3-oxospiro[isobenzofuran-1(3H),9'-[9H]xanthen]-5-yl)amino]-2-oxoethyl]thio]-1-oxopropyl]-L-γ-glutamyl-S-[2-[(4-arsonophenyl)amino]-2-oxoethyl]-L-cysteinyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



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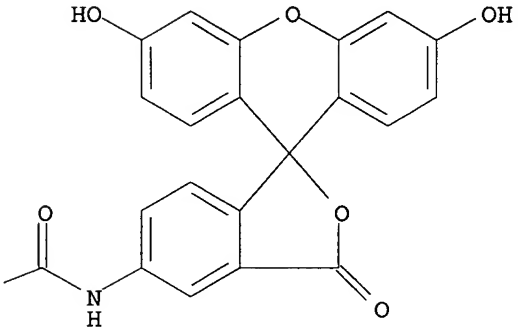
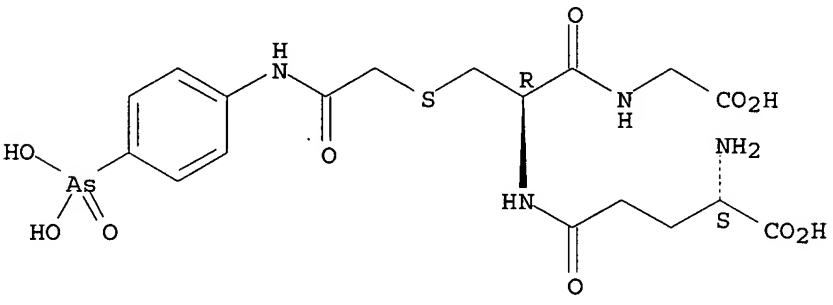


IT **331722-77-1P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(arsenide compound system for selective targeting of apoptotic cell)
RN 331722-77-1 CAPLUS
CN Glycine, L-γ-glutamyl-S-[2-[(4-arsonophenyl)amino]-2-oxoethyl]-L-cysteinyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS

RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L20 ANSWER 3 OF 15 CAPLUS COPYRIGHT 2005 ACS on STN DUPLICATE 3
ACCESSION NUMBER: 2003:23108 CAPLUS
DOCUMENT NUMBER: 138:83356
TITLE: Modification of angiogenesis by targeting protein tyrosine phosphatases
INVENTOR(S): Hogg, Philip John
PATENT ASSIGNEE(S): Unisearch Limited, Australia
SOURCE: PCT Int. Appl., 86 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003003011	A1	20030109	WO 2002-AU848	20020628

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
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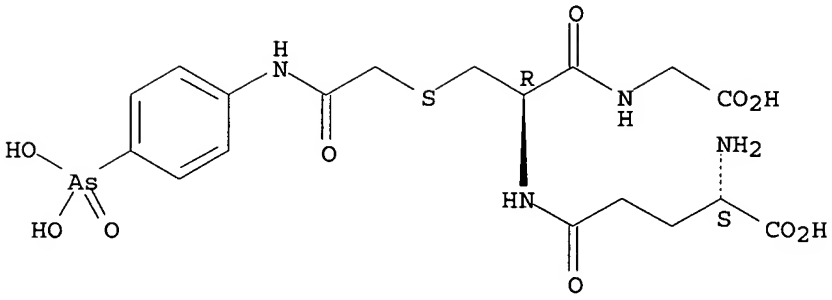
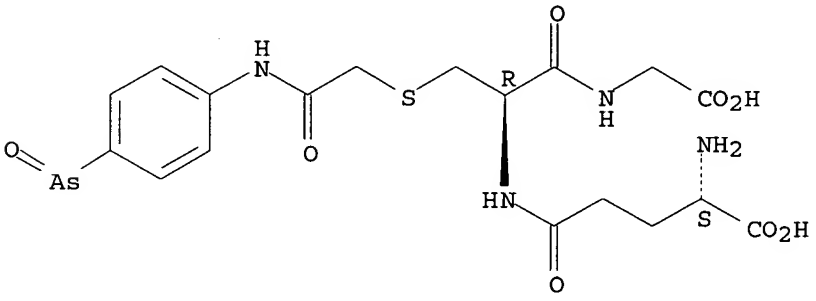
PRIORITY APPLN. INFO.: AU 2001-5989 A 20010628
OTHER SOURCE(S): MARPAT 138:83356
ED Entered STN: 10 Jan 2003
AB The invention relates to a process for identifying a compound which is a modifier of angiogenesis, said process comprising contacting a cell or cell extract with said compound, determining whether there is a change in the activity of at least one protein tyrosine phosphatase selected from the group consisting of: PTP-PEST and PTP-1B, and thereby determining whether the compds. is a modifier of angiogenesis.
IT **331722-77-1P**
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(modification of angiogenesis by targeting protein tyrosine phosphatases)
RN 331722-77-1 CAPLUS
CN Glycine, L-γ-glutamyl-S-[2-[(4-arsonophenyl)amino]-2-oxoethyl]-L-cysteinyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



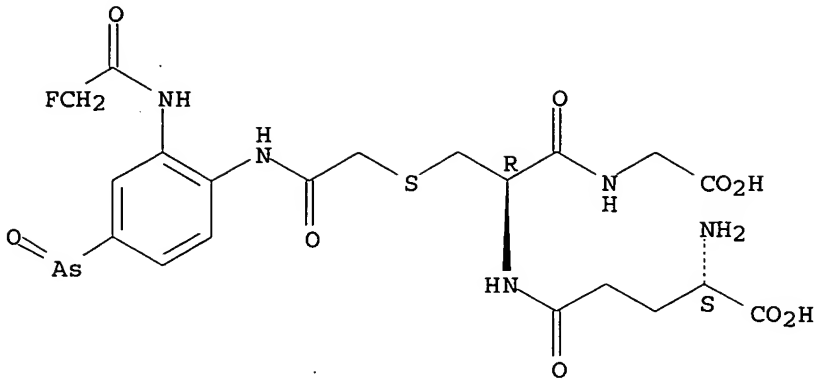
IT **331722-70-4 331722-71-5 331722-72-6**
331722-73-7 331722-74-8
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(modification of angiogenesis by targeting protein tyrosine phosphatases)
RN 331722-70-4 CAPLUS
CN Glycine, L-γ-glutamyl-S-[2-[(4-arsenosophenyl)amino]-2-oxoethyl]-L-cysteinyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



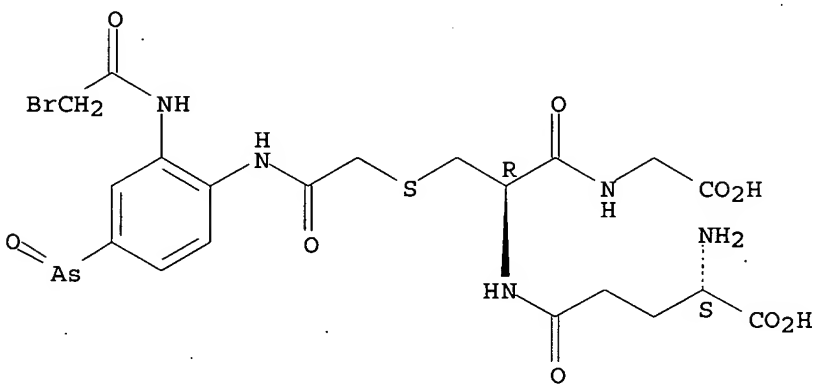
RN 331722-71-5 CAPLUS
CN Glycine, L-γ-glutamyl-S-[2-[[4-arsenoso-2-[(fluoroacetyl)amino]phenyl]amino]-2-oxoethyl]-L-cysteinyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



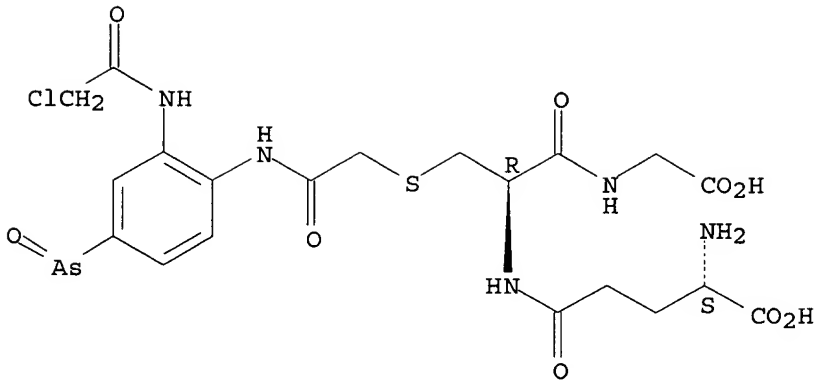
RN 331722-72-6 CAPLUS
CN Glycine, L-γ-glutamyl-S-[2-[[4-arsenoso-2-[(bromoacetyl)amino]phenyl]amino]-2-oxoethyl]-L-cysteinyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



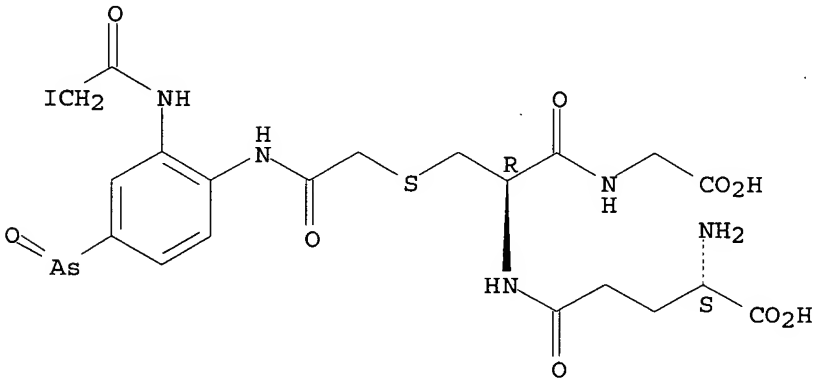
RN 331722-73-7 CAPLUS
CN Glycine, L-γ-glutamyl-S-[2-[[4-arsenoso-2-[(chloroacetyl)amino]phenyl]amino]-2-oxoethyl]-L-cysteinyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 331722-74-8 CAPLUS
CN Glycine, L-γ-glutamyl-S-[2-[[4-arsenoso-2-[(iodoacetyl)amino]phenyl]amino]-2-oxoethyl]-L-cysteinyl- (9CI) (CA INDEX NAME)

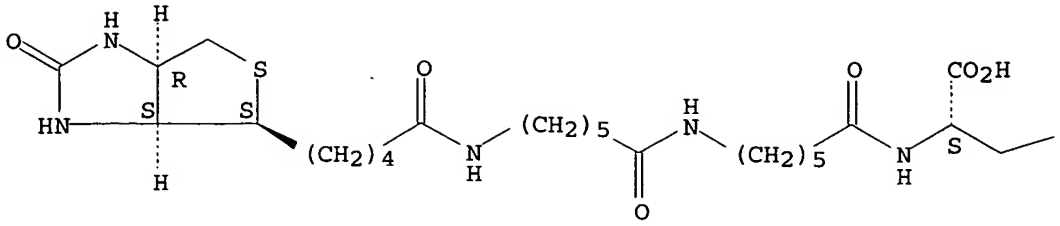
Absolute stereochemistry.



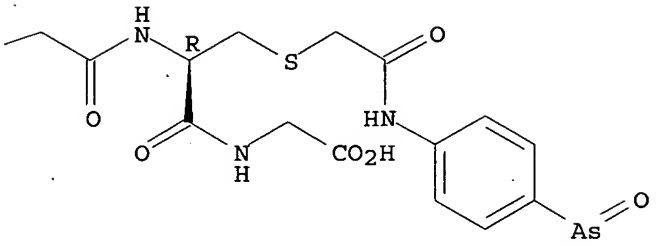
IT **331722-78-2P 482573-48-8P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(modification of angiogenesis by targeting protein tyrosine phosphatases)
RN 331722-78-2 CAPLUS
CN Glycine, N-[6-[[6-[[5-[(3aS,4S,6aR)-hexahydro-2-oxo-1H-thieno[3,4-d]imidazol-4-yl]-1-oxopentyl]amino]-1-oxohexyl]amino]-1-oxohexyl]-L-γ-glutamyl-S-[2-[(4-arsenosophenyl)amino]-2-oxoethyl]-L-cysteinyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A

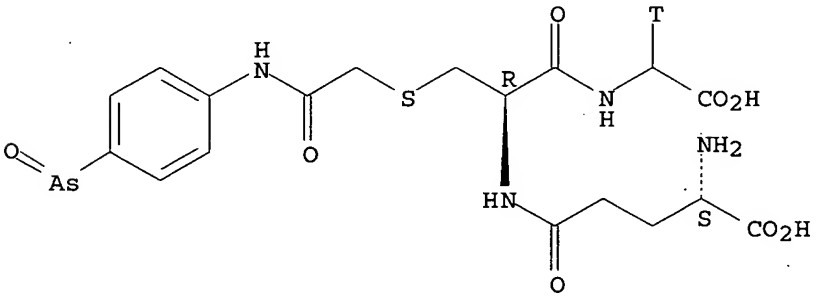


PAGE 1-B



RN 482573-48-8 CAPLUS
CN Glycine-2-t, L-γ-glutamyl-S-[2-[(4-arsenosophenyl)amino]-2-oxoethyl]-L-cysteinyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

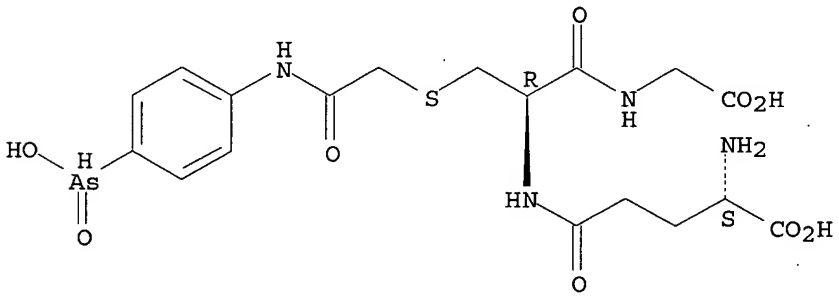


REFERENCE COUNT: 12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L20 ANSWER 4 OF 15 CAPLUS COPYRIGHT 2005 ACS on STN DUPLICATE 4
ACCESSION NUMBER: 2003:438194 CAPLUS
DOCUMENT NUMBER: 139:332576
TITLE: A peptide trivalent arsenical inhibits tumor angiogenesis by perturbing mitochondrial function in angiogenic endothelial cells
AUTHOR(S): Don, Anthony S.; Kisker, Oliver; Dilda, Pierre; Donoghue, Neil; Zhao, Xueyun; Decollogne, Stephanie;

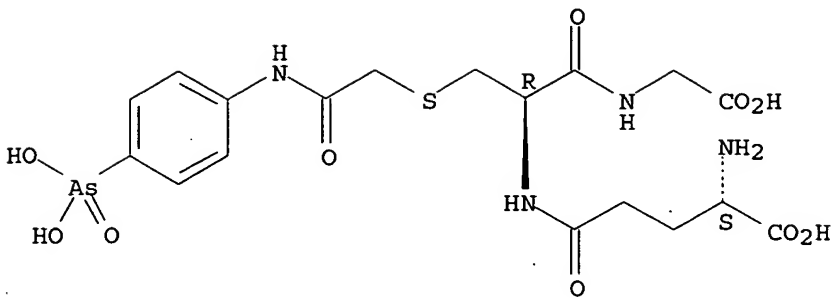
Creighton, Belinda; Flynn, Evelyn; Folkman, Judah; Hogg, Philip J.
CORPORATE SOURCE: Centre for Vascular Research, Prince of Wales Hospital, University of New South Wales and Department of Haematology, Sydney, Australia
SOURCE: Cancer Cell (2003), 3(5), 497-509
CODEN: CCAECI; ISSN: 1535-6108
PUBLISHER: Cell Press
DOCUMENT TYPE: Journal
LANGUAGE: English
ED Entered STN: 09 Jun 2003
AB Mitochondria are the powerhouse of the cell and their disruption leads to cell death. We have used a peptide trivalent arsenical, 4-(N-(S-glutathionylacetyl)amino) phenylarsenoxide (GSAO), to inactivate the adenine nucleotide translocator (ANT) that exchanges matrix ATP for cytosolic ADP across the inner mitochondrial membrane and is the key component of the mitochondrial permeability transition pore (MPTP). GSAO triggered Ca2+-dependent MPTP opening by crosslinking Cys160 and Cys257 of ANT. GSAO treatment caused a concentration-dependent increase in superoxide levels, ATP depletion, mitochondrial depolarization, and apoptosis in proliferating, but not growth-quiescent, endothelial cells. Endothelial cell proliferation drives new blood vessel formation, or angiogenesis. GSAO inhibited angiogenesis in the chick chorioallantoic membrane and in solid tumors in mice. Consequently, GSAO inhibited tumor growth in mice with no apparent toxicity at efficacious doses.
IT **334756-34-2P**
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(peptide trivalent arsenical inhibits tumor angiogenesis by perturbing mitochondrial function in angiogenic endothelial cells)
RN 334756-34-2 CAPLUS
CN Glycine, L-γ-glutamyl-S-[2-[[4-(hydroxyarsinyl)phenyl]amino]-2-oxoethyl]-L-cysteinyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



IT **331722-77-1**
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(peptide trivalent arsenical inhibits tumor angiogenesis by perturbing mitochondrial function in angiogenic endothelial cells)
RN 331722-77-1 CAPLUS
CN Glycine, L-γ-glutamyl-S-[2-[(4-arsonophenyl)amino]-2-oxoethyl]-L-cysteinyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 61 THERE ARE 61 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L20 ANSWER 5 OF 15 CAPLUS COPYRIGHT 2005 ACS on STN DUPLICATE 5
ACCESSION NUMBER: 2002:736109 CAPLUS
DOCUMENT NUMBER: 137:257647
TITLE: Use of a substantially cell membrane impermeable arsenoxide compound for treating arthritis
INVENTOR(S): Hogg, Philip John; Donoghue, Neil
PATENT ASSIGNEE(S): Unisearch Limited, Australia
SOURCE: PCT Int. Appl., 91 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

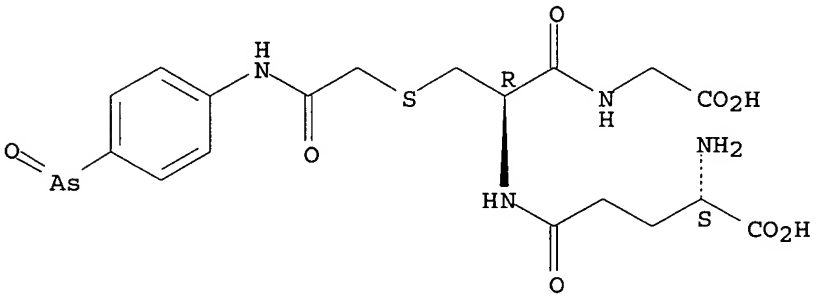
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002074305	A1	20020926	WO 2002-AU310	20020319
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
EP 1379233	A1	20040114	EP 2002-704485	20020319
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
US 2004138102	A1	20040715	US 2004-472252	20040315
PRIORITY APPLN. INFO.:			AU 2001-3798 A	20010319
			WO 2002-AU310 W	20020319

OTHER SOURCE(S): MARPAT 137:257647
ED Entered STN: 27 Sep 2002
AB The invention provides a method of treatment and/or prophylaxis of arthritis in a vertebrate, comprising administering a therapeutically effective amount of a compound A-(L-Y)p [A = at least one substantially cell-membrane impermeable pendant group; L = linker and/or spacer group; Y = at least one arsenoxide or arsenoxide equivalent; p = 1-10; the sum total of carbon atoms in A and L together is greater than 6], or a pharmaceutically acceptable salt thereof, optionally together with a pharmaceutically acceptable carrier, diluent or excipient. Preparation of compds. of the

invention is described.

IT **331722-70-4P**
RL: BSU (Biological study, unclassified); PAC (Pharmacological activity); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(cell membrane impermeable arsenoxide compound for treating arthritis)
RN 331722-70-4 CAPLUS
CN Glycine, L-γ-glutamyl-S-[2-[(4-arsenosophenyl)amino]-2-oxoethyl]-L-cysteinyl- (9CI) (CA INDEX NAME)

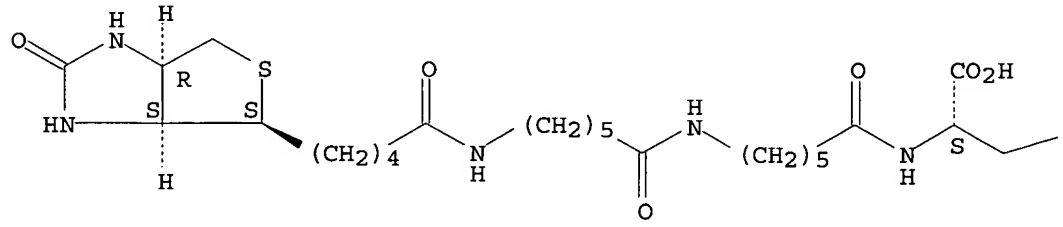
Absolute stereochemistry.



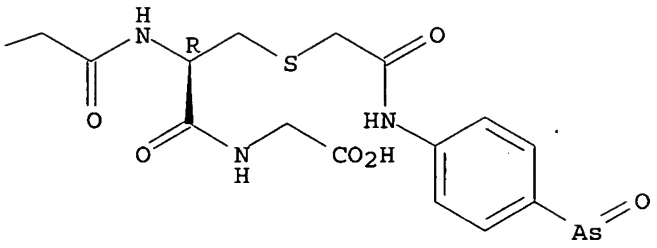
IT **331722-78-2P**
RL: BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
(cell membrane impermeable arsenoxide compound for treating arthritis)
RN 331722-78-2 CAPLUS
CN Glycine, N-[6-[[6-[[5-[(3aS,4S,6aR)-hexahydro-2-oxo-1H-thieno[3,4-d]imidazol-4-yl]-1-oxopentyl]amino]-1-oxohexyl]amino]-1-oxohexyl]-L-γ-glutamyl-S-[2-[(4-arsenosophenyl)amino]-2-oxoethyl]-L-cysteinyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A

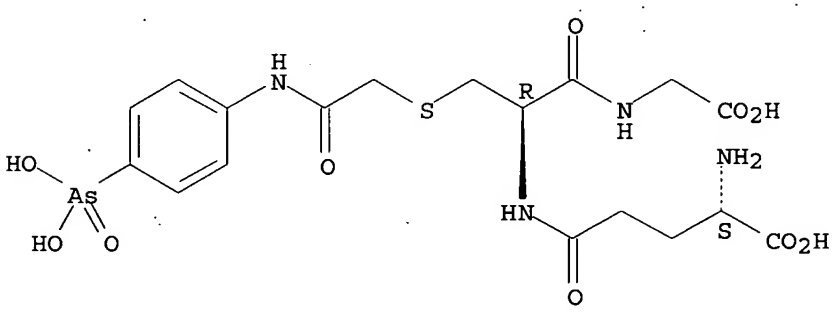


PAGE 1-B



IT **331722-77-1P 331722-79-3P 331722-80-6P**
331722-87-3P 331722-88-4P 331722-90-8P
461644-49-5P
RL: SPN (Synthetic preparation); PREP (Preparation)
(cell membrane impermeable arsenoxide compound for treating arthritis)
RN 331722-77-1 CAPLUS
CN Glycine, L-γ-glutamyl-S-[2-[(4-arsonophenyl)amino]-2-oxoethyl]-L-cysteinyl- (9CI) (CA INDEX NAME)

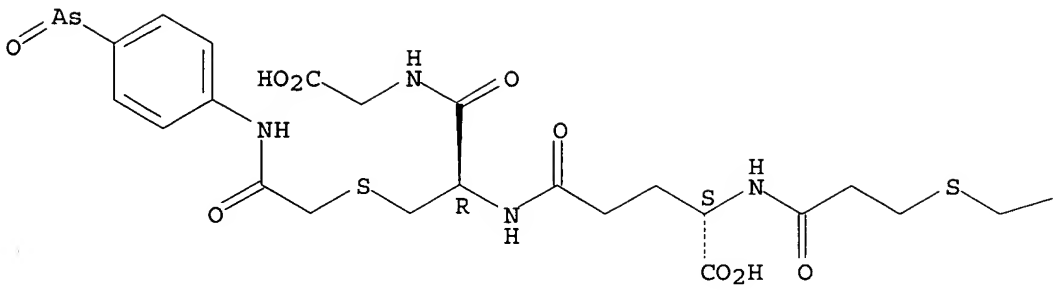
Absolute stereochemistry.



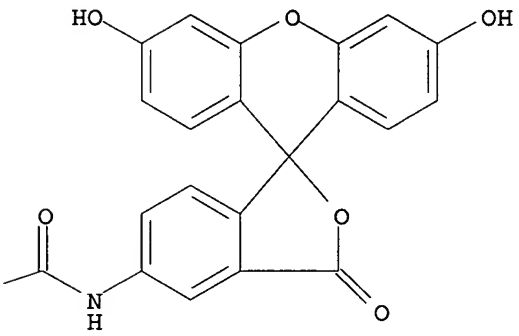
RN 331722-79-3 CAPLUS
CN Glycine, N-[3-[[2-[(3',6'-dihydroxy-3-oxospiro[isobenzofuran-1(3H),9'-[9H]xanthen]-5-yl)amino]-2-oxoethyl]thio]-1-oxopropyl]-L-γ-glutamyl-S-[2-[(4-arsenosophenyl)amino]-2-oxoethyl]-L-cysteinyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



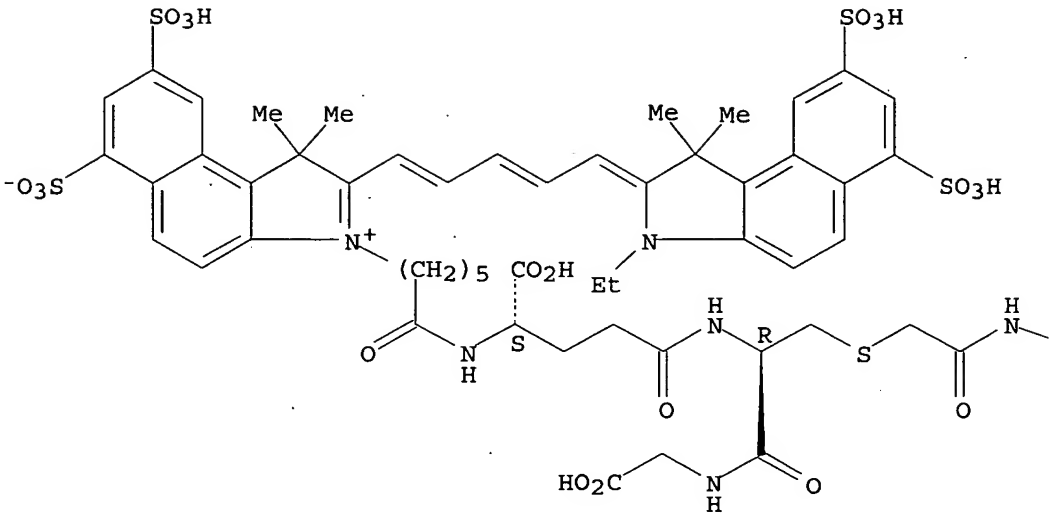
PAGE 1-B



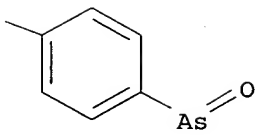
RN 331722-80-6 CAPLUS
CN Glycine, N-[6-[2-[5-(3-ethyl-1,3-dihydro-1,1-dimethyl-6,8-disulfo-2H-benz[e]indol-2-ylidene)-1,3-pentadienyl]-1,1-dimethyl-6,8-disulfo-1H-benz[e]indolio]-1-oxohexyl]-L-γ-glutamyl-S-[2-[(4-arsenosophenyl)amino]-2-oxoethyl]-L-cysteinyl-, inner salt (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry unknown.

PAGE 1-A

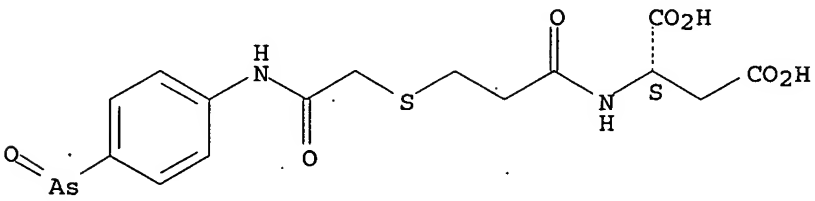


PAGE 1-B



RN 331722-87-3 CAPLUS
CN L-Aspartic acid, N-[3-[[2-[(4-arsenosophenyl)amino]-2-oxoethyl]thio]-1-oxopropyl]- (9CI) (CA INDEX NAME)

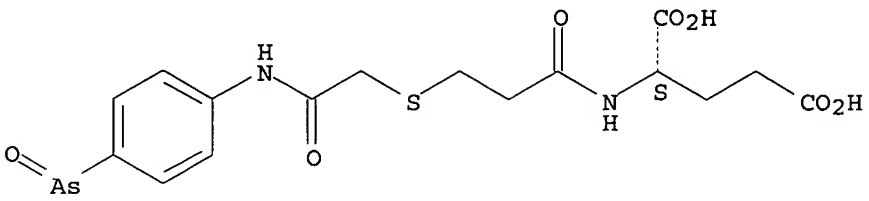
Absolute stereochemistry.



Searched by Barb O'Bryen, STIC 2-2518

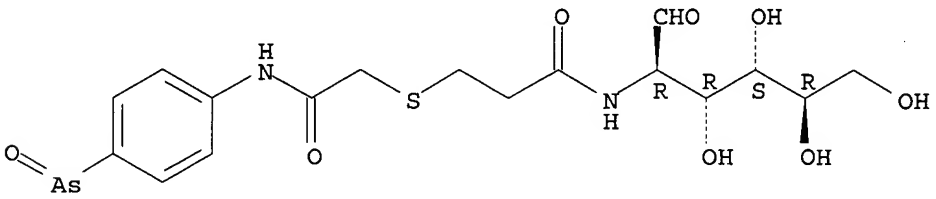
RN 331722-88-4 CAPLUS
CN L-Glutamic acid, N-[3-[[2-[(4-arsenosophenyl)amino]-2-oxoethyl]thio]-1-oxopropyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



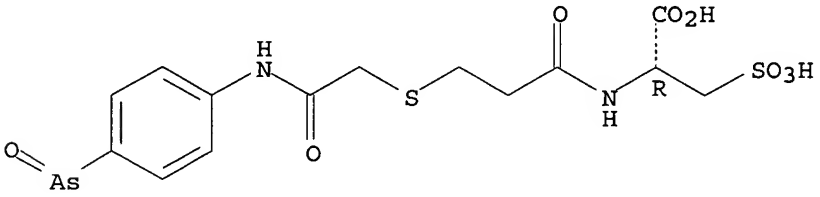
RN 331722-90-8 CAPLUS
CN D-Glucose, 2-[[3-[[2-[(4-arsenosophenyl)amino]-2-oxoethyl]thio]-1-oxopropyl]amino]-2-deoxy- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 461644-49-5 CAPLUS
CN L-Alanine, N-[3-[[2-[(4-arsenosophenyl)amino]-2-oxoethyl]thio]-1-oxopropyl]-3-sulfo- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

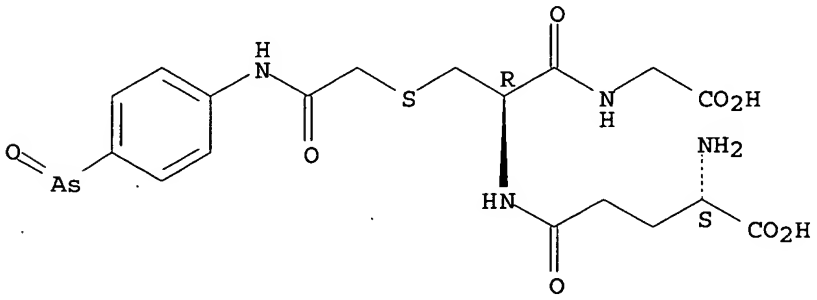
L20 ANSWER 6 OF 15 CAPLUS COPYRIGHT 2005 ACS on STN DUPLICATE 6
ACCESSION NUMBER: 2001:228897 CAPLUS
DOCUMENT NUMBER: 134:261272
TITLE: Cell membrane-impermeable arsenoxide compounds, their preparation, pharmaceutical compositions, and therapeutic and diagnostic use
INVENTOR(S): Hogg, Philip John; Donoghue, Neil
PATENT ASSIGNEE(S): Unisearch Limited, Australia
SOURCE: PCT Int. Appl., 122 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001021628	A1	20010329	WO 2000-AU1143	20000920
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
CA 2385322	AA	20010329	CA 2000-2385322	20000920
EP 1228076	A1	20020807	EP 2000-965636	20000920
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL				
JP 2003509516	T2	20030311	JP 2001-525003	20000920
AU 778781	B2	20041223	AU 2000-76320	20000920
ZA 2002002272	A	20030725	ZA 2002-2272	20020320
PRIORITY APPLN. INFO.:			AU 1999-2967 A	19990920
			WO 2000-AU1143 W	20000920

OTHER SOURCE(S): MARPAT 134:261272
ED Entered STN: 30 Mar 2001
AB The invention discloses compds. A(LY)p, (A = ≥1 substantially cell-membrane impermeable pendant group; L = linker and/or spacer; Y = ≥1 arsenoxide or arsenoxide equivalent; p = 1-10; sum total of C atoms in A and L together >6). Preparation of e.g. 4-[N-(S-glutathionylacetyl)amino]phenylarsenoxide is described, as are e.g. the antitumor activity, tumor imaging ability, and activity inhibiting HIV infection of compds. of the invention. Pharmaceutical formulations are also described.
IT **331722-70-4P**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); PEP (Physical, engineering or chemical process); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); PROC (Process); USES (Uses)
(substantially cell membrane-impermeable compound and use thereof)
RN 331722-70-4 CAPLUS
CN Glycine, L-γ-glutamyl-S-[2-[(4-arsenosophenyl)amino]-2-oxoethyl]-L-cysteinyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

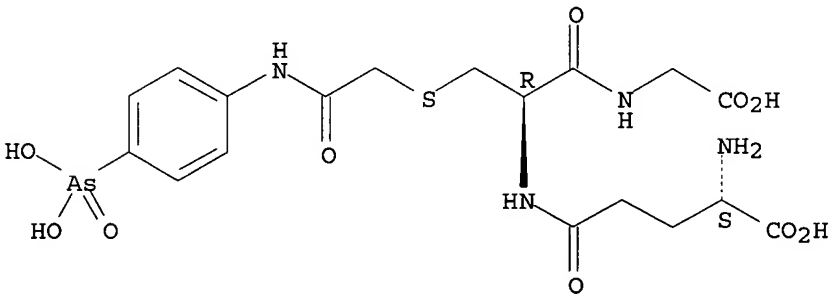


IT **331722-77-1P 331722-78-2P 331722-79-3P**

331722-80-6P 331722-87-3P 331722-88-4P
331722-89-5P 331722-90-8P
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(substantially cell membrane-impermeable compound and use thereof)

RN 331722-77-1 CAPLUS
CN Glycine, L-γ-glutamyl-S-[2-[(4-arsonophenyl)amino]-2-oxoethyl]-L-cysteinyl- (9CI) (CA INDEX NAME)

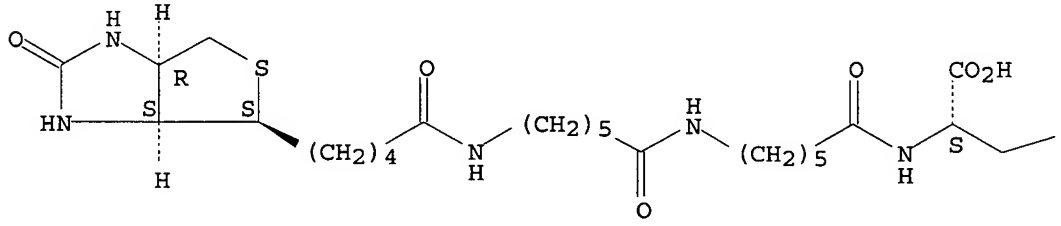
Absolute stereochemistry.



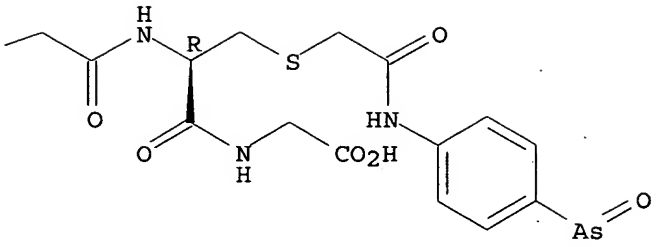
RN 331722-78-2 CAPLUS
CN Glycine, N-[6-[[6-[[5-[(3aS,4S,6aR)-hexahydro-2-oxo-1H-thieno[3,4-d]imidazol-4-yl]-1-oxopentyl]amino]-1-oxohexyl]amino]-1-oxohexyl]-L-γ-glutamyl-S-[2-[(4-arsenosophenyl)amino]-2-oxoethyl]-L-cysteinyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



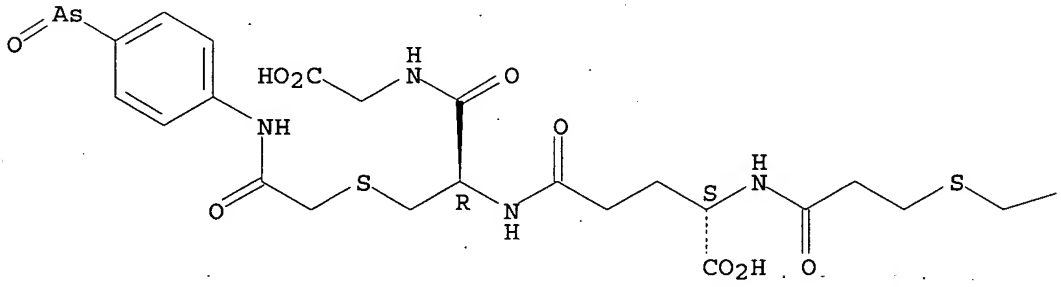
PAGE 1-B



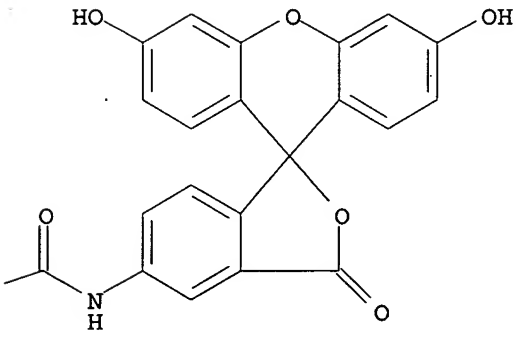
RN 331722-79-3 CAPLUS
CN Glycine, N-[3-[[2-[(3',6'-dihydroxy-3-oxospiro[isobenzofuran-1(3H),9'-[9H]xanthen]-5-yl)amino]-2-oxoethyl]thio]-1-oxopropyl]-L-γ-glutamyl-S-[2-[(4-arsenosophenyl)amino]-2-oxoethyl]-L-cysteinyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



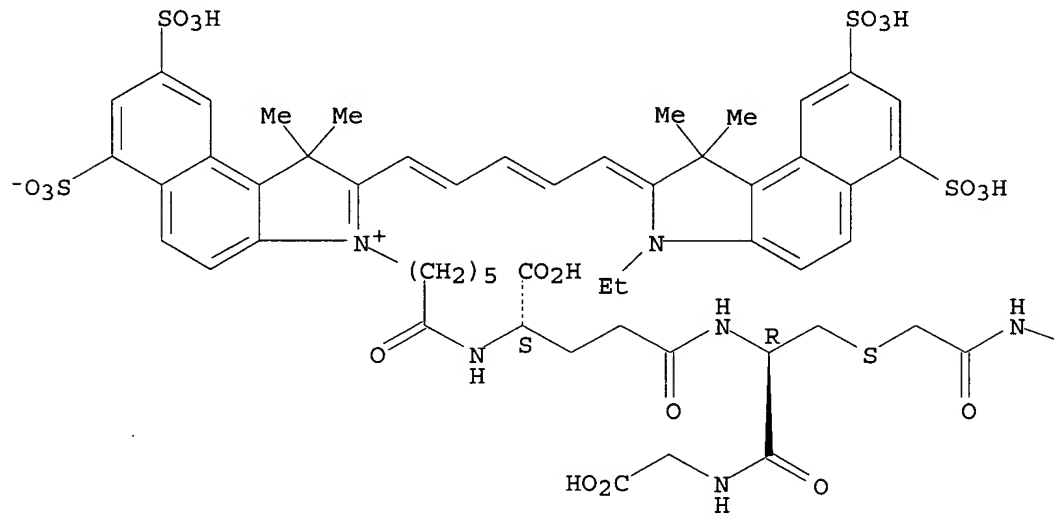
PAGE 1-B



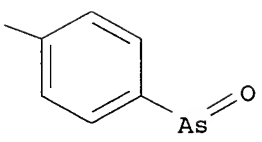
RN 331722-80-6 CAPLUS
CN Glycine, N-[6-[2-[5-(3-ethyl-1,3-dihydro-1,1-dimethyl-6,8-disulfo-2H-benz[e]indol-2-ylidene)-1,3-pentadienyl]-1,1-dimethyl-6,8-disulfo-1H-benz[e]indolio]-1-oxohexyl]-L-γ-glutamyl-S-[2-[(4-arsenosophenyl)amino]-2-oxoethyl]-L-cysteinyl-, inner salt (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry unknown.

PAGE 1-A

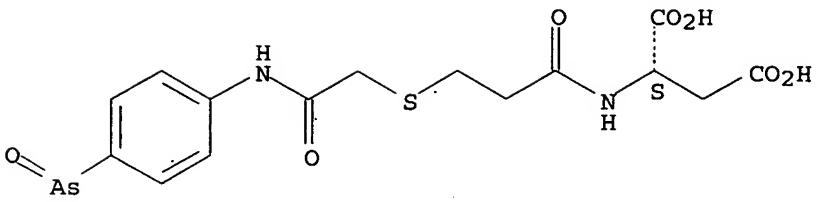


PAGE 1-B



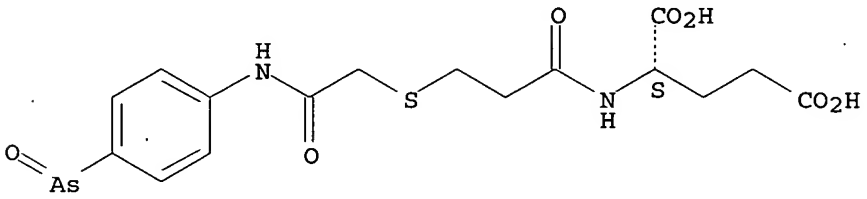
RN 331722-87-3 CAPLUS
CN L-Aspartic acid, N-[3-[[2-[(4-arsenosophenyl)amino]-2-oxoethyl]thio]-1-oxopropyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



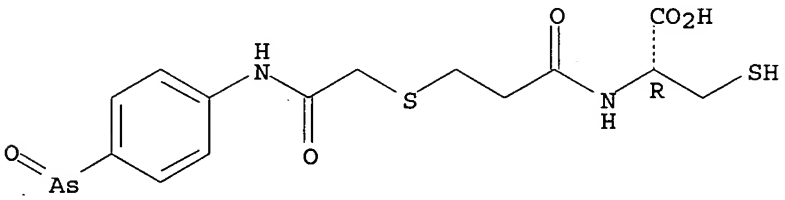
RN 331722-88-4 CAPLUS
CN L-Glutamic acid, N-[3-[[2-[(4-arsenosophenyl)amino]-2-oxoethyl]thio]-1-oxopropyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



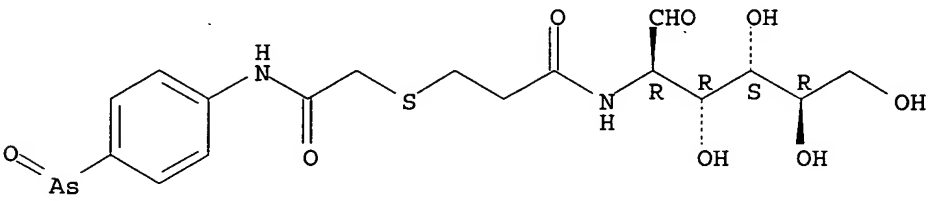
RN 331722-89-5 CAPLUS
CN L-Cysteine, N-[3-[[2-[(4-arsenosophenyl)amino]-2-oxoethyl]thio]-1-oxopropyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 331722-90-8 CAPLUS
CN D-Glucose, 2-[[3-[[2-[(4-arsenosophenyl)amino]-2-oxoethyl]thio]-1-oxopropyl]amino]-2-deoxy- (9CI) (CA INDEX NAME)

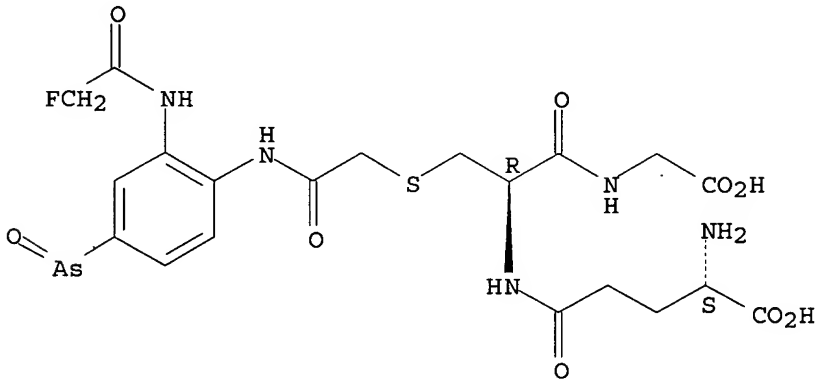
Absolute stereochemistry.



IT **331722-71-5 331722-72-6 331722-73-7**
331722-74-8 331746-49-7
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(substantially cell membrane-impermeable compound and use thereof)

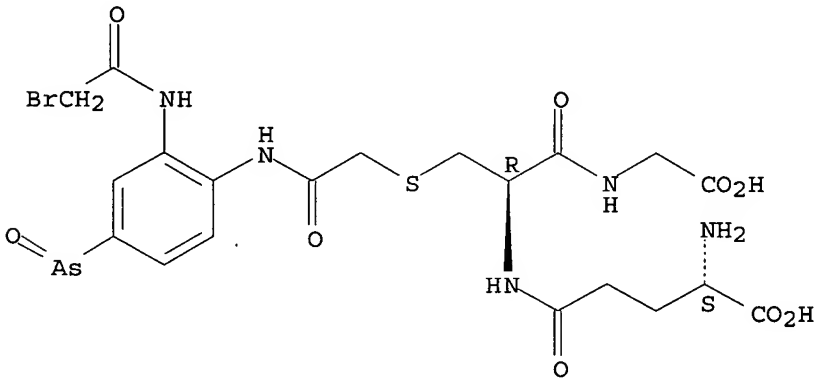
RN 331722-71-5 CAPLUS
CN Glycine, L-γ-glutamyl-S-[2-[[4-arsenoso-2-[(fluoroacetyl)amino]phenyl]amino]-2-oxoethyl]-L-cysteinyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



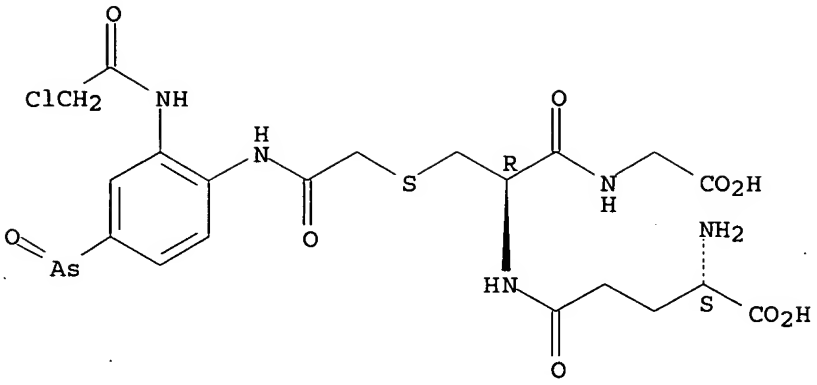
RN 331722-72-6 CAPLUS
CN Glycine, L-γ-glutamyl-S-[2-[[4-arsenoso-2-[(bromoacetyl)amino]phenyl]amino]-2-oxoethyl]-L-cysteinyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



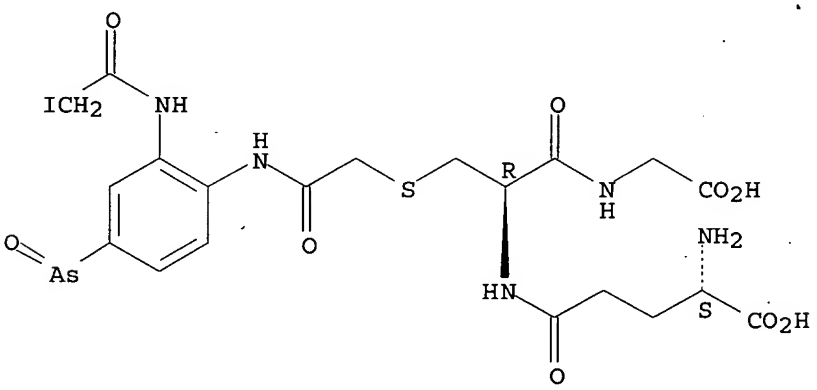
RN 331722-73-7 CAPLUS
CN Glycine, L-γ-glutamyl-S-[2-[[4-arsenoso-2-[(chloroacetyl)amino]phenyl]amino]-2-oxoethyl]-L-cysteinyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



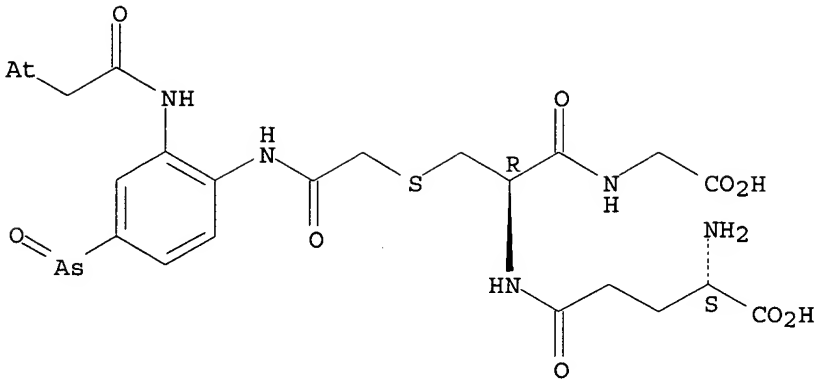
RN 331722-74-8 CAPLUS
CN Glycine, L-γ-glutamyl-S-[2-[[4-arsenoso-2-[(iodoacetyl)amino]phenyl]amino]-2-oxoethyl]-L-cysteinyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



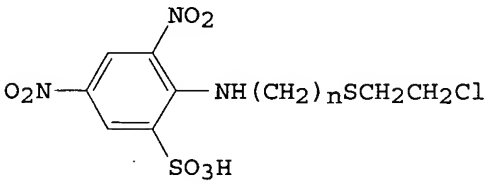
RN 331746-49-7 CAPLUS
CN Glycine, L-γ-glutamyl-S-[2-[[4-arsenoso-2-[(astatoacetyl)amino]phenyl]amino]-2-oxoethyl]-L-cysteinyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

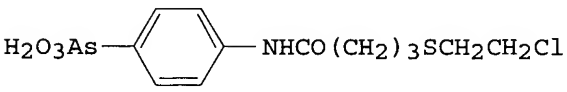


REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L20 ANSWER 7 OF 15 CAPLUS COPYRIGHT 2005 ACS on STN DUPLICATE 7
ACCESSION NUMBER: 1977:561583 CAPLUS
DOCUMENT NUMBER: 87:161583
TITLE: Chemoimmunotherapy of cancer. 2
AUTHOR(S): Soloway, A. H.; Wright, J. E.; Subramanyam, V.; Gozzo, J. J.
CORPORATE SOURCE: Dep. Med. Chem. Pharmacol., Northeast. Univ., Boston, MA, USA
SOURCE: Journal of Medicinal Chemistry (1977), 20(11), 1357-62
CODEN: JMCMAR; ISSN: 0022-2623
DOCUMENT TYPE: Journal
LANGUAGE: English
ED Entered STN: 12 May 1984
GI



I, n=2
II, n=3



III

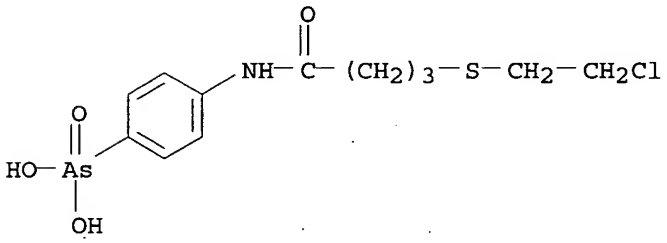
AB A series of water-soluble mustard haptens was prepared and tested in vivo against P388 leukemia. Of 3 dinitrobenzene mustards, prepared by alkylation of 2-mercaptoethanol [60-24-2] with an ω-bromoalkanamine followed by arylation with a chlorodinitrobenzene derivative and chlorination with SOCl2, I [64157-96-6] and II [64157-97-7] had a low order of in vivo activity. Eight amide mustards were prepared by alkylation of 2-mercaptoethanol by an Et ω-bromoalkanoate followed by saponification, chlorination with SOCl2, and reaction with a substituted aniline derivative The only active amide derivative

was III [**64157-98-8**], which had presumptive activity at the highest dosage. Allogeneic skin grafts were used to show the cellular immune response against hapten-bound tissue transplants in mice.

IT **64157-98-8P**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
(preparation and neoplasm inhibiting activity of)

RN 64157-98-8 CAPLUS

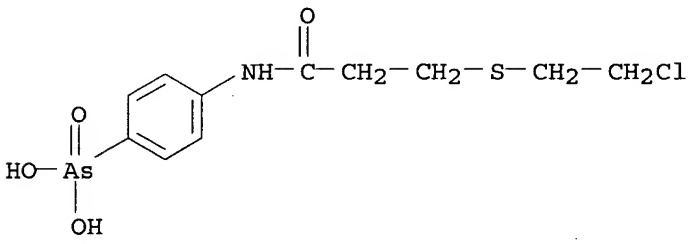
CN Arsonic acid, [4-[[4-[(2-chloroethyl)thio]-1-oxobutyl]amino]phenyl]- (9CI) (CA INDEX NAME)



IT **64157-88-6P**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of, as neoplasm inhibitor)

RN 64157-88-6 CAPLUS

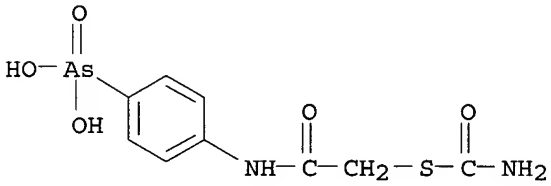
CN Arsonic acid, [4-[[3-[(2-chloroethyl)thio]-1-oxopropyl]amino]phenyl]- (9CI) (CA INDEX NAME)



L20 ANSWER 8 OF 15 CAPLUS COPYRIGHT 2005 ACS on STN DUPLICATE 8

ACCESSION NUMBER:	1953:10176 CAPLUS
DOCUMENT NUMBER:	47:10176
ORIGINAL REFERENCE NO.:	47:1851f-h
TITLE:	Tumor-damaging capacity of plant materials. I. Plants used as cathartics
AUTHOR(S):	Belkin, Morris; Fitzgerald, Dorothea B.; Cogan, George W.
CORPORATE SOURCE:	Natl. Cancer Inst., Bethesda, MD
SOURCE:	Journal of the National Cancer Institute (1940-1978) (1952), 13, 139-55 CODEN: JNCIAM; ISSN: 0027-8874
DOCUMENT TYPE:	Journal
LANGUAGE:	Unavailable

ED Entered STN: 22 Apr 2001
AB cf. C.A. 42, 5998g. Prepns. from 32 plants used as cathartics were tested for their capacity to damage sarcoma 37. A single s.c. injection of an aqueous suspension, an olive-oil suspension, an alc. extract, and an acid extract, resp., was used. Fifteen plants yielded at least 1 preparation which produced histol. demonstrable damage. The plants which produced the strongest effect in sarcoma 37 were Bryonia alba and dioica, Citrullus colocynthis, Ecballium elaterium, Rhamnus cathartica, Rheum officinale, Rumex crispus(R. obtusifolium), and Sonchus oleraceus; lesser damage was produced by Aloe perryi, Cassia alata, Euphorbia drummondii, E. pilulifera, E. resinifera, Garcinia hanburyi, Ipomoea orizabensis, and Veronica virginica. A mammary adenocarcinoma and a lymphosarcoma were affected by prepns. from Bryonia; a melanoma was damaged by Bryonia and Citrullus colocynthus.
IT **5428-98-8**, Arsanilic acid, N-mercaptoacetyl-, carbamate
(sarcoma 37 damaging action of)
RN 5428-98-8 CAPLUS
CN Carbamothioic acid, S-[2-[(4-arsonophenyl)amino]-2-oxoethyl] ester (9CI) (CA INDEX NAME)



L20 ANSWER 9 OF 15 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2002:560487 CAPLUS
DOCUMENT NUMBER: 137:168097
TITLE: Disulfide exchange in domain 2 of CD4 is required for entry of HIV-1
AUTHOR(S): Matthias, Lisa J.; Yam, Patricia T. W.; Jiang, Xing-Mai; Vandegraaff, Nick; Li, Peng; Poumbourios, Pantelis; Donoghue, Neil; Hogg, Philip J.
CORPORATE SOURCE: University of New South Wales and Department of Haematology, School of Medical Sciences, Prince of Wales Hospital, Centre for Thrombosis and Vascular Research, Sydney, 2052, Australia
SOURCE: Nature Immunology (2002), 3(8), 727-732
CODEN: NIAMCZ; ISSN: 1529-2908
PUBLISHER: Nature Publishing Group
DOCUMENT TYPE: Journal
LANGUAGE: English
ED Entered STN: 29 Jul 2002
AB CD4, a member of the Ig superfamily of receptors that mediates cell-cell interactions in the immune system, is the primary receptor for HIV-1. The extracellular portion of CD4 is a concatenation of four Ig-like domains, D1 to D4. The D1, D2 and D4 domains each contain a disulfide bond. We show here that the D2 disulfide bond is redox-active. The redox state of the thiols (disulfide vs. dithiol) appeared to be regulated by thioredoxin, which is secreted by CD4+ T cells. Locking the CD4 and the thioredoxin active-site dithiols in the reduced state with a hydrophilic trivalent arsenical blocked entry of HIV-1 into susceptible cells. These findings indicate that redox changes in CD4 D2 are important for HIV-1

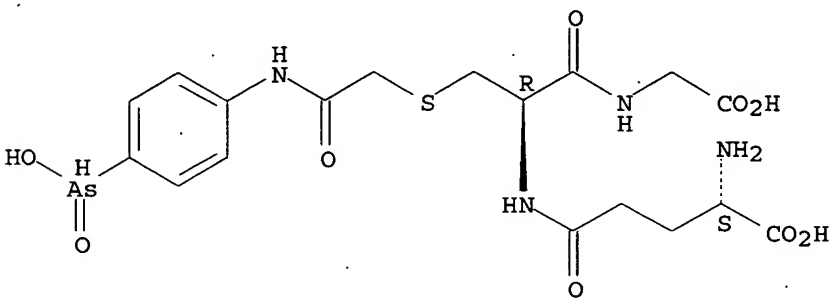
entry and represent a new target for HIV-1 entry inhibitors.

IT **334756-34-2**
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(disulfide exchange in domain 2 of CD4 is required for entry of HIV-1 and blocking of entry by)

RN 334756-34-2 CAPLUS

CN Glycine, L-γ-glutamyl-S-[2-[[4-(hydroxyarsinyl)phenyl]amino]-2-oxoethyl]-L-cysteinyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 50 THERE ARE 50 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L20 ANSWER 10 OF 15 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2002:813002 CAPLUS

DOCUMENT NUMBER: 138:350747

TITLE: Identification of redox-active proteins on cell surface

AUTHOR(S): Donoghue, Neil; Hogg, Philip J.

CORPORATE SOURCE: Center for Thrombosis and Vascular Research, School of Pathology, University of New South Wales, Sydney, 2052, Australia

SOURCE: Methods in Enzymology (2002), 352(Redox Cell Biology and Genetics, Part A), 101-112
CODEN: MENZAU; ISSN: 0076-6879

PUBLISHER: Academic Press

DOCUMENT TYPE: Journal

LANGUAGE: English

ED Entered STN: 25 Oct 2002

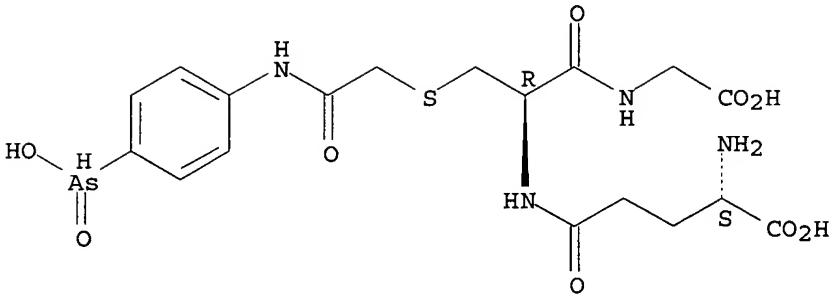
AB The protocols for the synthesis of 4-[N-(S-glutathionylacetyl)amino]phenyl arsenoxide (GSAO)-B are described, particularly those for using N-[3-(N-maleimidyl)propionyl] biocytin and GSAO-B to identify and characterize redox-active proteins on the cell surface.

IT **334756-34-2P**
RL: BUU (Biological use, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
(identification of redox-active proteins on cell surface)

RN 334756-34-2 CAPLUS

CN Glycine, L-γ-glutamyl-S-[2-[[4-(hydroxyarsinyl)phenyl]amino]-2-oxoethyl]-L-cysteinyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

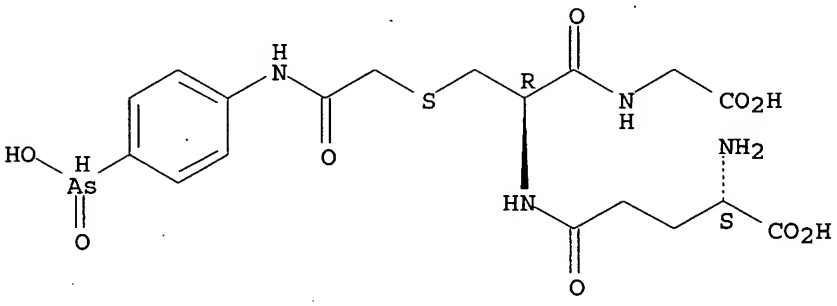


REFERENCE COUNT: 14 THERE ARE 14 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L20 ANSWER 11 OF 15 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2001:76284 CAPLUS
DOCUMENT NUMBER: 134:291716
TITLE: Presence of closely spaced protein thiols on the surface of mammalian cells
AUTHOR(S): Donoghue, Neil; Yam, Patricia T. W.; Jiang, Xing-Mai; Hogg, Philip J.
CORPORATE SOURCE: Centre for Thrombosis and Vascular Research, School of Pathology, University of New South Wales, Sydney, 2052, Australia
SOURCE: Protein Science (2000), 9(12), 2436-2445
CODEN: PRCIEI; ISSN: 0961-8368
PUBLISHER: Cambridge University Press
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 134:291716
ED Entered STN: 02 Feb 2001
AB It has been proposed that certain cell-surface proteins undergo redox reactions, i.e., transfer of hydrogens and electrons between closely spaced cysteine thiols that can lead to reduction, formation, or interchange of disulfide bonds. This concept was tested using a membrane-impermeable trivalent arsenical to identify closely spaced thiols in cell-surface proteins. We attached the trivalent arsenical, phenylarsenoxide, to the thiol of reduced glutathione to produce 4-(N-(S-glutathionylacetyl)amino)phenylarsenoxide (GSAO). GSAO bound tightly to synthetic, peptide, and protein dithiols like thioredoxin, but not to monothiols. To identify cell-surface proteins that contain closely spaced thiols, we attached a biotin moiety through a spacer arm to the primary amino group of the γ-glutamyl residue of GSAO (GSAO-B). Incorporation of GSAO-B into proteins was assessed by measuring the biotin using streptavidin-peroxidase. Up to 12 distinct proteins were labeled with GSAO-B on the surface of endothelial and fibrosarcoma cells. The pattern of labeled proteins differed between the different cell types. Protein disulfide isomerase was one of the proteins on the endothelial and fibrosarcoma cell surface that incorporated GSAO-B. These findings demonstrate that the cell-surface environment can support the existence of closely spaced protein thiols and suggest that at least some of these thiols are redox active.
IT **334756-34-2P**
RL: BUU (Biological use, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
(presence of closely spaced protein thiols on surface of mammalian cells)

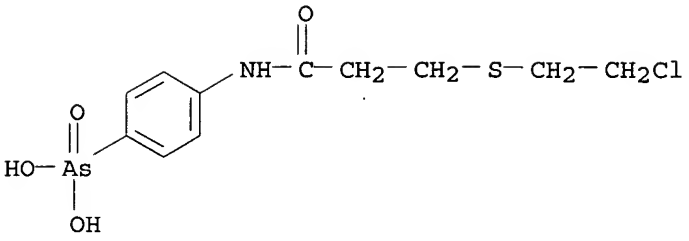
RN 334756-34-2 CAPLUS
CN Glycine, L-γ-glutamyl-S-[2-[[4-(hydroxyarsinyl)phenyl]amino]-2-oxoethyl]-L-cysteinyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

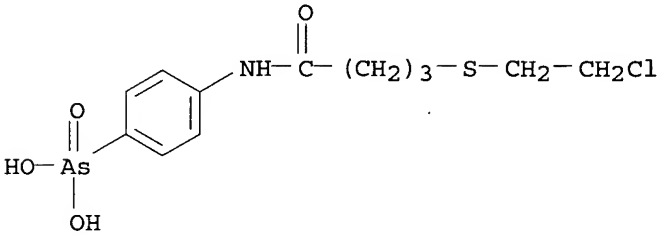


REFERENCE COUNT: 32 THERE ARE 32 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L20 ANSWER 12 OF 15 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1977:577364 CAPLUS
DOCUMENT NUMBER: 87:177364
TITLE: Chemoimmunotherapy of cancer. 3. Analytical measurement of chemical half-lives of monofunctional alkylators
AUTHOR(S): Wright, J. E.; Hayes, M. J.; Subramanyam, V.; Soloway, A. H.
CORPORATE SOURCE: Coll. Pharm. Allied Health Prof., Northeast. Univ., Boston, MA, USA
SOURCE: Journal of Medicinal Chemistry (1977), 20(12), 1700-2
CODEN: JMCMAR; ISSN: 0022-2623
DOCUMENT TYPE: Journal
LANGUAGE: English
ED Entered STN: 12 May 1984
AB The hydrolysis rates and half-lives of 7 chloroethyl sulfide alkylating agents under simulated physiol. conditions and at various concns. were determined through the measurement of chloride concns. using a rapid-response, chloride selective electrode. None of the compds. gave the desired subsecond half-life. Factors influencing the hydrolysis rates are discussed.
IT **64157-88-6 64157-98-8**
RL: PRP (Properties)
(hydrolysis and kinetics of, chemotherapy in relation to)
RN 64157-88-6 CAPLUS
CN Arsonic acid, [4-[[3-[(2-chloroethyl)thio]-1-oxopropyl]amino]phenyl]- (9CI) (CA INDEX NAME)



RN 64157-98-8 CAPLUS
CN Arsonic acid, [4-[[4-[(2-chloroethyl)thio]-1-oxobutyl]amino]phenyl]- (9CI) (CA INDEX NAME)



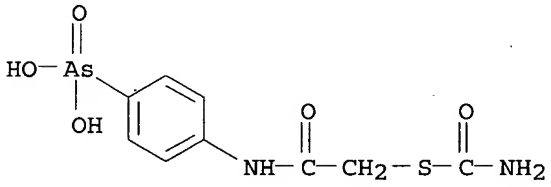
L20 ANSWER 13 OF 15 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1948:5707 CAPLUS
DOCUMENT NUMBER: 42:5707
ORIGINAL REFERENCE NO.: 42:1220d-i
TITLE: N-Arylamides of mercaptoacetic acid. I. Analogs of α-carbamylmercaptoacetanilide
AUTHOR(S): Weiss, Ulrich
CORPORATE SOURCE: Endo Products, Inc., Richmond Hill, NY
SOURCE: Journal of the American Chemical Society (1947), 69, 2682-4
CODEN: JACSAT; ISSN: 0002-7863
DOCUMENT TYPE: Journal
LANGUAGE: Unavailable
ED Entered STN: 22 Apr 2001
AB Carbamyl compds. (RCOCH2SCONH2) (I) have been prepared as intermediates for N-arylmercaptoacetamides (Part II). The base (0.1 mole) in 100 cc. H2O is brought into solution with the min. quantity of dilute HCl, treated with 0.1 mole NaOCOCH2SCN.H2O (II) in about 10% aqueous solution, and kept 2-3 days; addition of further II to the mother liquors gives more I (method A); in some cases (method B), the reaction can be carried out in AcOH for 1-2 days. The following derivs. of I (R given) were prepared by method A, except as indicated. PhMeN, m. 147° (m. ps. corrected), 82%; PhCH2NPh, m. 144°, 8% (B); o-MeC6H4NH, m. 133°, 77%; p-isomer, m. 187°, 82%; 3,4-Me2C6H3NH, m. 157°, 63%(A), 76% (B); 2,6-Me2C6H3NH (III), m. 160°, 64%; o-PhC6H4NH, m. 159°, very small (A), 50% (B); 1-C10H7NH, m. 171-3°, 50%; 2-isomer, m. 197°, 53%(A), 77%(B); p-AcC6H4NH, m. 196°, 57%(A), 64%(B); m-O2NC6H4NH, m. 156°, 42%(B); p-isomer, light yellow, m. 190°, 84%; o-MeOC6H4NH, m. 172°, 90%; p-isomer, m. 172°, 77%; o-HOC6H4NH, m. 184°, 83%; m-isomer, m.

176°, 85%; p-isomer, m. 190°, 84%; o-HO2CC6H4NH, m. 188-90°, 71%; p-isomer, m. 215°, 67%; p-EtO2CC6H4NH, m. 146°, 48%; 2,5-HO(MeO2C)C6H3NH, m. 205°, 70%; p-HO2CCH2C6H4NH, m. 194°, 73%; p-H2O3AsC6H4NH, 43%; sulfapyridine, m. 190°, 40%; sulfathiazole, m. 192-4°, 48%; sulfadiazine, light yellow, m. 203-5°, 13%; PhNHNH, m. 157°, 35%(B). The I are very sensitive to alkalies, are decomposed by boiling H2O, and to a small extent by boiling MeOH or EtOH; the decomposition is suppressed in an acid medium. Characteristic decomposition with formation of cyanuric acid occurs at 170-200°. I give fairly stable brownish red colors with Na nitroprusside and alc. alkali; alkaline Pb solns. give yellow ppts. SeOCl2 in concentrated H2SO4 gives intense colors, identical with those of the corresponding SH compound (Part II). H2NCONHNH2.HCl (11.1 g.) and 15.7 g. II in 200 cc. H2O, adjusted to pH 3, give 14.3 g. of the compound C4H8N4O3S, m. 112° (decomposition); Na nitroprusside gives an intense transient purple color; CuCl2 gives a deep purplish black precipitate after 15 min.; alkali liberates the base. Cyclohexylamine salt m. 110.5-11.5°; 2-aminothiazole salt m. 127-8° (decomposition); the salt of 2,6-Me2C6H3NH2 m. incompletely about 85°, becoming clear at about 140°; it rearranges to III in the dry state or upon warming its aqueous or alc. solution or if it is brought back into solution by dilution of the original reaction mixture The other salts do not rearrange to compds. of type I.

IT **5428-98-8**, Arsanilic acid, N-mercaptoacetyl-, carbamate (ester) (preparation of)

RN 5428-98-8 CAPLUS

CN Carbamothioic acid, S-[2-[(4-arsonophenyl)amino]-2-oxoethyl] ester (9CI) (CA INDEX NAME)



L20 ANSWER 14 OF 15 USPATFULL on STN

ACCESSION NUMBER:	2005:118251 USPATFULL
TITLE:	Selective targeting of apoptotic cells
INVENTOR(S):	Hogg, Philip John, Randwick, AUSTRALIA

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 2005101524	A1	20050512	
APPLICATION INFO.:	US 2003-494822	A1	20021108	(10)
	WO 2002-AU1523		20021108	

	NUMBER	DATE
PRIORITY INFORMATION:	AU 2003-8746	20011108

DOCUMENT TYPE:	Utility
FILE SEGMENT:	APPLICATION
LEGAL REPRESENTATIVE:	MCDONNELL BOEHNEN HULBERT & BERGHOFF LLP, 300 S. WACKER DRIVE, 32ND FLOOR, CHICAGO, IL, 60606, US
NUMBER OF CLAIMS:	54

EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 15 Drawing Page(s)
LINE COUNT: 2642
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The invention relates to a method of selectively targeting an active agent (or agent capable of becoming an active agent) to apoptotic cells in a vertebrate, comprising administering to said vertebrate a system comprising an arsenoxide (or arsenoxide equivalent) compound and said agent, wherein said system selectively targets apoptotic cells

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

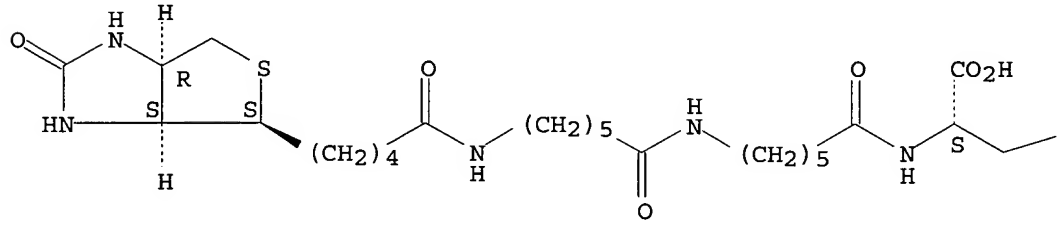
IT **525549-70-6**
(arsenide compound system for selective targeting of apoptotic cell)

RN 525549-70-6 USPATFULL

CN Glycine, N-[6-[[6-[[5-[(3aS,4S,6aR)-hexahydro-2-oxo-1H-thieno[3,4-d]imidazol-4-yl]-1-oxopentyl]amino]-1-oxohexyl]amino]-1-oxohexyl]-L-γ-glutamyl-S-[2-[(4-arsonophenyl)amino]-2-oxoethyl]-L-cysteinyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



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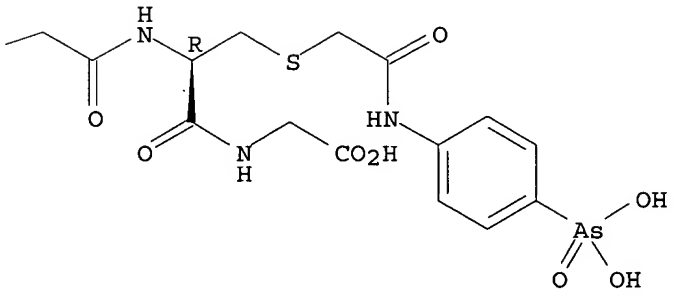
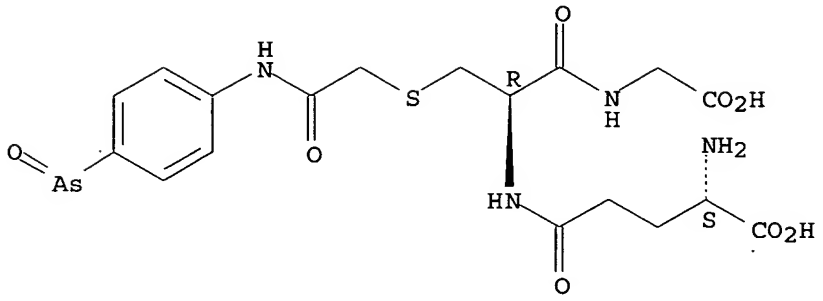


IT **331722-70-4P**
(arsenide compound system for selective targeting of apoptotic cell)

RN 331722-70-4 USPATFULL

CN Glycine, L-γ-glutamyl-S-[2-[(4-arsenosophenyl)amino]-2-oxoethyl]-L-cysteinyl- (9CI) (CA INDEX NAME)

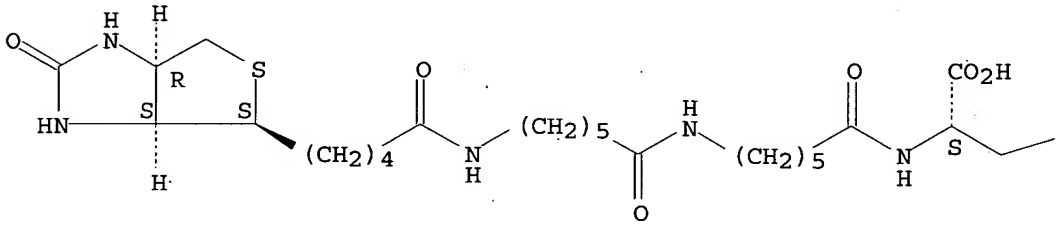
Absolute stereochemistry.



IT **331722-78-2P 331722-79-3P 331722-80-6P**
525549-67-1P 525549-69-3P
(arsenide compound system for selective targeting of apoptotic cell)
RN 331722-78-2 USPATFULL
CN Glycine, N-[6-[[6-[[5-[(3aS,4S,6aR)-hexahydro-2-oxo-1H-thieno[3,4-d]imidazol-4-yl]-1-oxopentyl]amino]-1-oxohexyl]amino]-1-oxohexyl]-L-γ-glutamyl-S-[2-[(4-arsenosophenyl)amino]-2-oxoethyl]-L-cysteinyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



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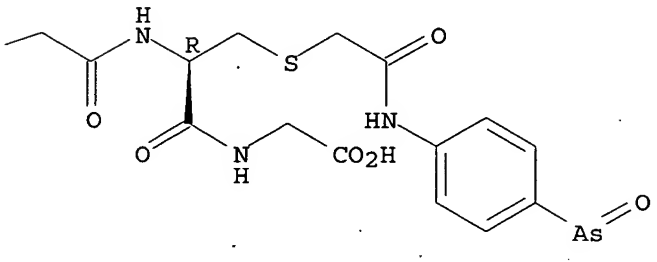
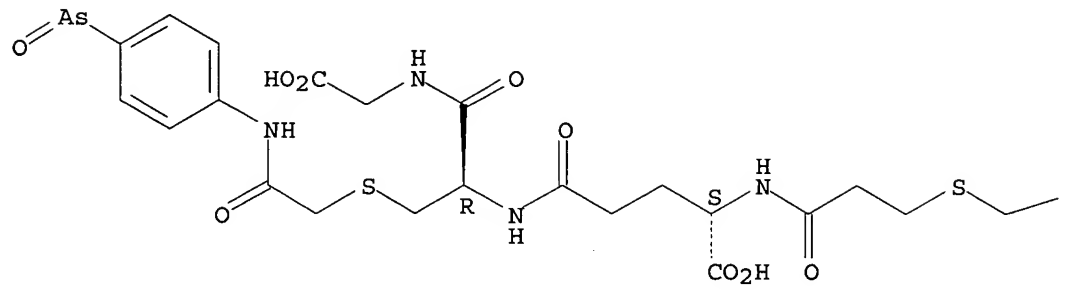


RN 331722-79-3 USPATFULL
CN Glycine, N-[3-[[2-[(3',6'-dihydroxy-3-oxospiro[isobenzofuran-1(3H),9'-[9H]xanthen]-5-yl)amino]-2-oxoethyl]thio]-1-oxopropyl]-L-γ-glutamyl-S-[2-[(4-arsenosophenyl)amino]-2-oxoethyl]-L-cysteinyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



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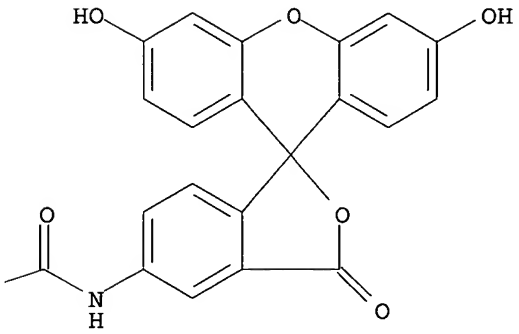
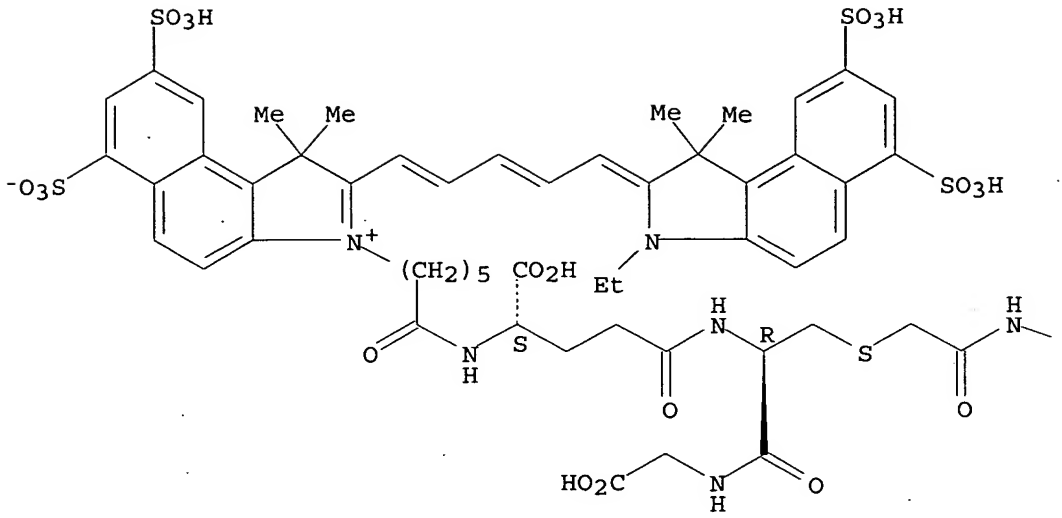


RN 331722-80-6 USPATFULL
CN Glycine, N-[6-[2-[5-(3-ethyl-1,3-dihydro-1,1-dimethyl-6,8-disulfo-2H-benz[e]indol-2-ylidene)-1,3-pentadienyl]-1,1-dimethyl-6,8-disulfo-1H-benz[e]indolio]-1-oxohexyl]-L-γ-glutamyl-S-[2-[(4-arsenosophenyl)amino]-2-oxoethyl]-L-cysteinyl-, inner salt (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry unknown.

PAGE 1-A



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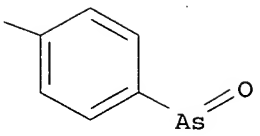
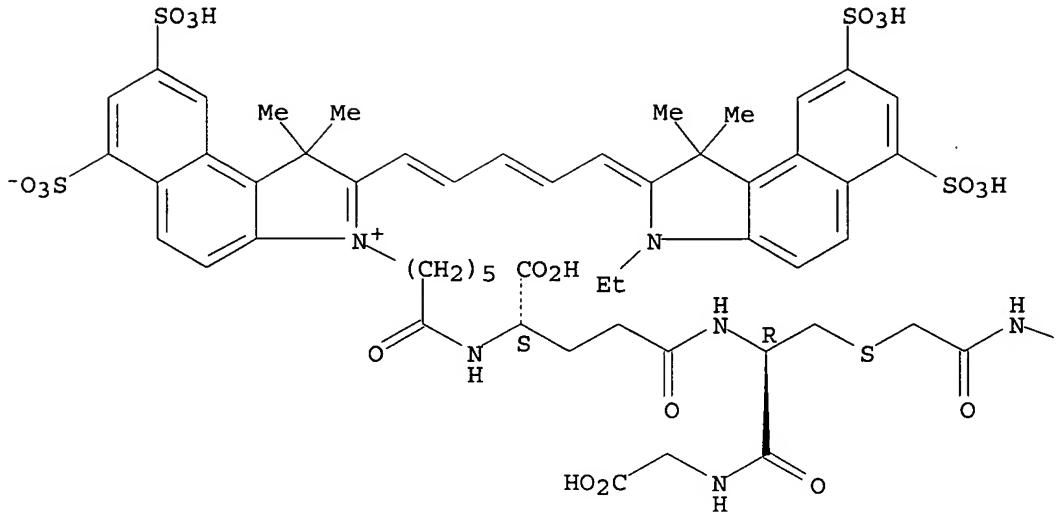


RN 525549-67-1 USPATFULL
CN Glycine, N-[6-[2-[5-(3-ethyl-1,3-dihydro-1,1-dimethyl-6,8-disulfo-2H-benz[e]indol-2-ylidene)-1,3-pentadienyl]-1,1-dimethyl-6,8-disulfo-1H-benz[e]indolio]-1-oxohexyl]-L-γ-glutamyl-S-[2-[(4-arsonophenyl)amino]-2-oxoethyl]-L-cysteinyl-, inner salt (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry unknown.

PAGE 1-A



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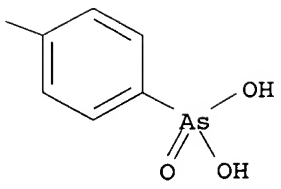
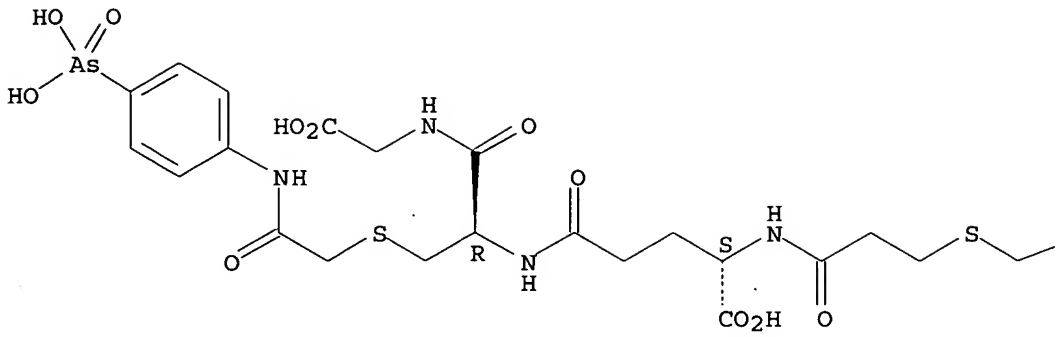


RN 525549-69-3 USPATFULL
CN Glycine, N-[3-[[2-[(3',6'-dihydroxy-3-oxospiro[isobenzofuran-1(3H),9'-[9H]xanthen]-5-yl)amino]-2-oxoethyl]thio]-1-oxopropyl]-L-γ-glutamyl-S-[2-[(4-arsonophenyl)amino]-2-oxoethyl]-L-cysteinyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



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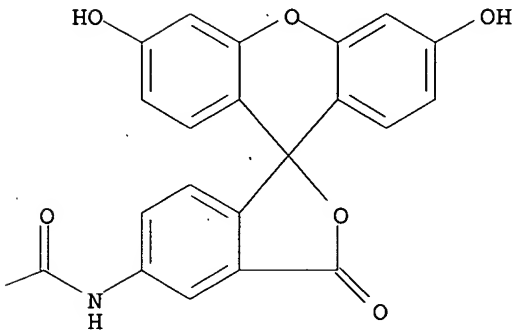
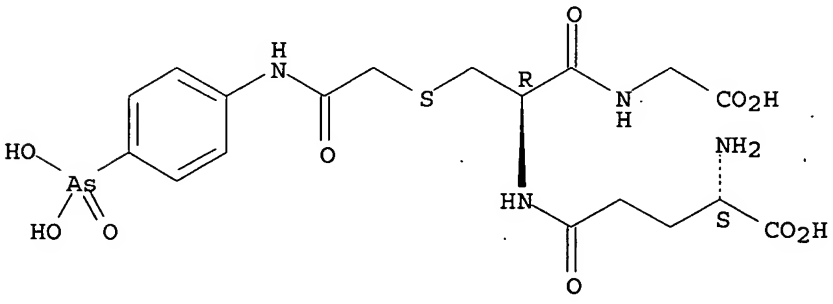


IT **331722-77-1P**
(arsenide compound system for selective targeting of apoptotic cell)
RN 331722-77-1 USPATFULL
CN Glycine, L-γ-glutamyl-S-[2-[(4-arsonophenyl)amino]-2-oxoethyl]-L-cysteinyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L20 ANSWER 15 OF 15 USPATFULL on STN
ACCESSION NUMBER: 2004:178932 USPATFULL

Searched by Barb O'Bryen, STIC 2-2518

TITLE: Use of a substantially cell membrane impermeable compound for treating arthritis

INVENTOR(S): Hogg, Philip John, New South Wales, AUSTRALIA

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 2004138102	A1	20040715	
APPLICATION INFO.:	US 2004-472252	A1	20040315	(10)
	WO 2002-AU310		20020319	

	NUMBER	DATE
PRIORITY INFORMATION:	AU 2001-3798	20010319

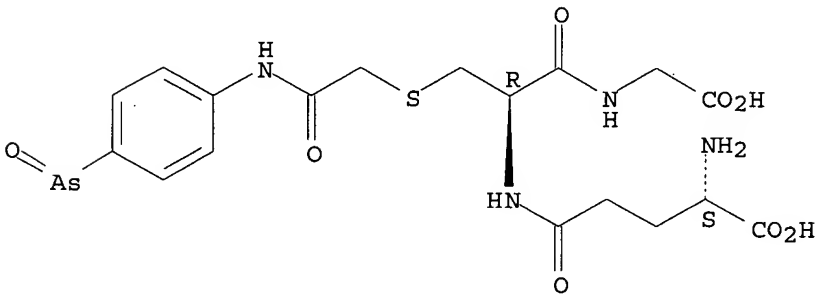
DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: MCDONNELL BOEHNEN HULBERT & BERGHOFF LLP, 300 S. WACKER DRIVE, 32ND FLOOR, CHICAGO, IL, 60606
NUMBER OF CLAIMS: 35
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 24 Drawing Page(s)
LINE COUNT: 2853
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention provides a method of treatment and/or prophylaxis of arthritis in a vertebrate comprising administering to said vertebrate in need of said treatment and/or prophylaxis a therapeutically effective amount of a compound of Formula (I) or a pharmaceutically acceptable salt thereof, optionally together with a pharmaceutically acceptable carrier, diluent or excipient, wherein said compound of formula (I) is defined as: A-(L-Y).sub.p, wherein: A comprises at least one substantially cell-membrane impermeable pendant group; L comprises any suitable linker and/or spacer group; Y comprises at least one arsenoxide or arsenoxide equivalent; p is an integer from 1 to 10; and the sum total of carbon atoms in A and L together, is greater than 6.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

IT **331722-70-4P**
(cell membrane impermeable arsenoxide compound for treating arthritis)
RN 331722-70-4 USPATFULL
CN Glycine, L-γ-glutamyl-S-[2-[(4-arsenosophenyl)amino]-2-oxoethyl]-L-cysteinyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

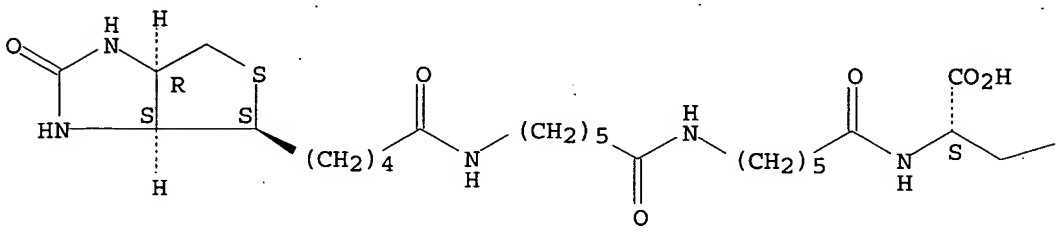


IT **331722-78-2P**
(cell membrane impermeable arsenoxide compound for treating arthritis)
RN 331722-78-2 USPATFULL
CN Glycine, N-[6-[[6-[[5-[(3aS,4S,6aR)-hexahydro-2-oxo-1H-thieno[3,4-

d]imidazol-4-yl]-1-oxopentyl]amino]-1-oxohexyl]amino]-1-oxohexyl]-L-γ-glutamyl-S-[2-[(4-arsenosophenyl)amino]-2-oxoethyl]-L-cysteinyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



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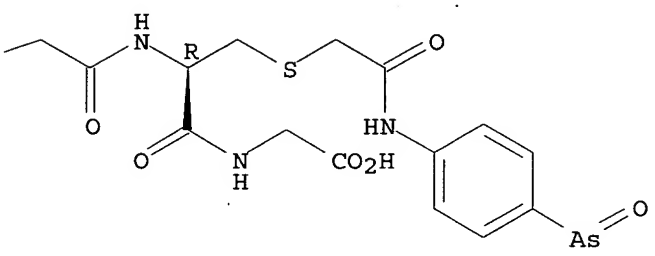
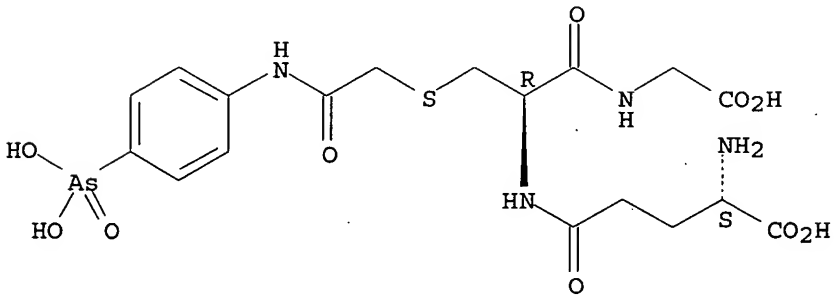


IT **331722-77-1P 331722-79-3P 331722-80-6P 331722-87-3P 331722-88-4P 331722-90-8P 461644-49-5P**
(cell membrane impermeable arsenoxide compound for treating arthritis)

RN 331722-77-1 USPATFULL

CN Glycine, L-γ-glutamyl-S-[2-[(4-arsonophenyl)amino]-2-oxoethyl]-L-cysteinyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



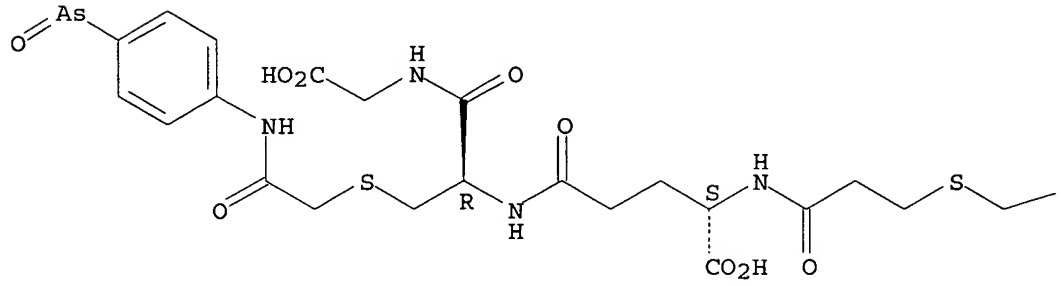
RN 331722-79-3 USPATFULL

CN Glycine, N-[3-[[2-[(3',6'-dihydroxy-3-oxospiro[isobenzofuran-1(3H),9'-

[9H]xanthen]-5-yl)amino]-2-oxoethyl]thio]-1-oxopropyl]-L-γ-glutamyl-S-[2-[(4-arsenosophenyl)amino]-2-oxoethyl]-L-cysteinyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



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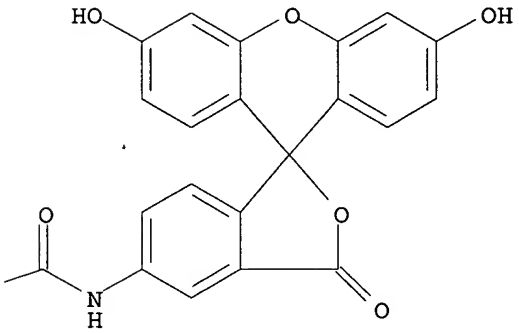
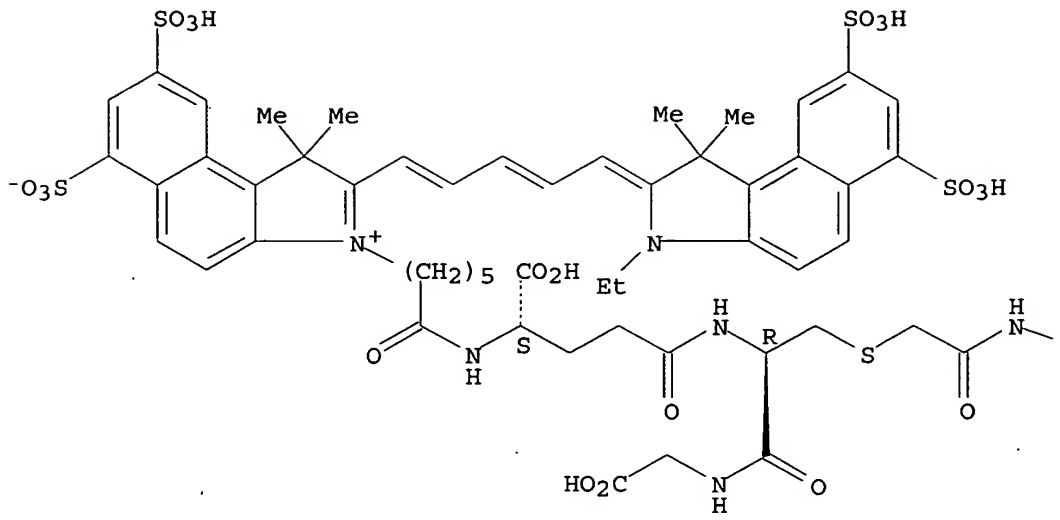


RN 331722-80-6 USPATFULL
CN Glycine, N-[6-[2-[5-(3-ethyl-1,3-dihydro-1,1-dimethyl-6,8-disulfo-2H-benz[e]indol-2-ylidene)-1,3-pentadienyl]-1,1-dimethyl-6,8-disulfo-1H-benz[e]indolio]-1-oxohexyl]-L-γ-glutamyl-S-[2-[(4-arsenosophenyl)amino]-2-oxoethyl]-L-cysteinyl-, inner salt (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry unknown.

PAGE 1-A



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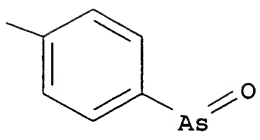
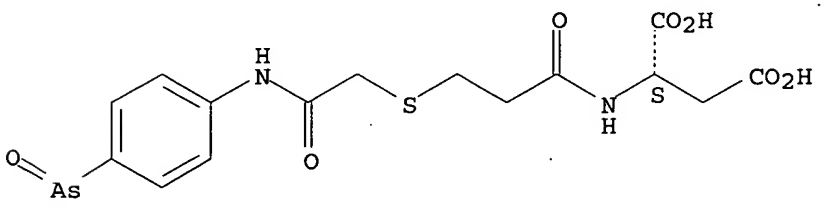


RN 331722-87-3 USPATFULL
CN L-Aspartic acid, N-[3-[[2-[(4-arsenosophenyl)amino]-2-oxoethyl]thio]-1-oxopropyl]- (9CI) (CA INDEX NAME)

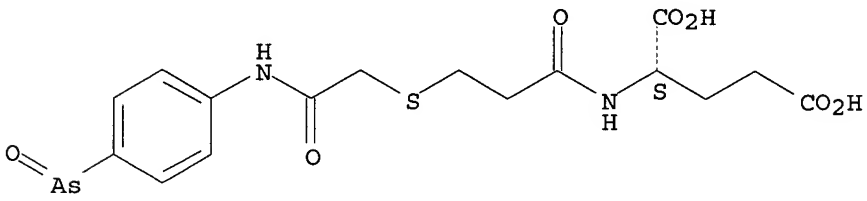
Absolute stereochemistry.



Searched by Barb O'Bryen, STIC 2-2518

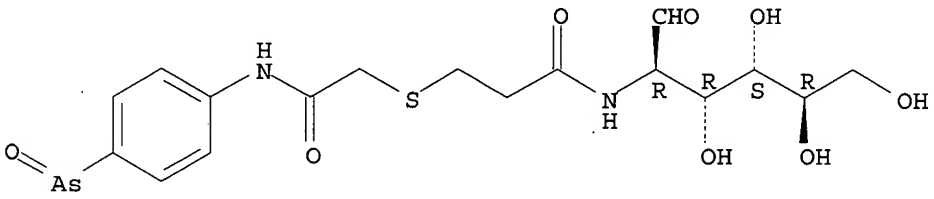
RN 331722-88-4 USPATFULL
CN L-Glutamic acid, N-[3-[[2-[(4-arsenosophenyl)amino]-2-oxoethyl]thio]-1-oxopropyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



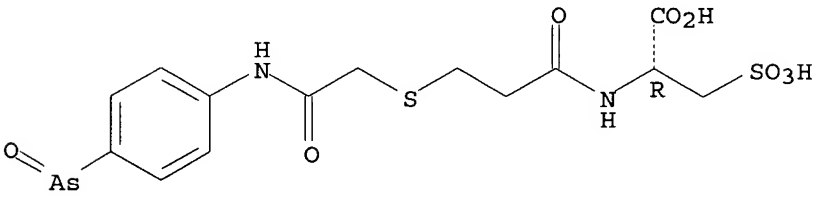
RN 331722-90-8 USPATFULL
CN D-Glucose, 2-[[3-[[2-[(4-arsenosophenyl)amino]-2-oxoethyl]thio]-1-oxopropyl]amino]-2-deoxy- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 461644-49-5 USPATFULL
CN L-Alanine, N-[3-[[2-[(4-arsenosophenyl)amino]-2-oxoethyl]thio]-1-oxopropyl]-3-sulfo- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



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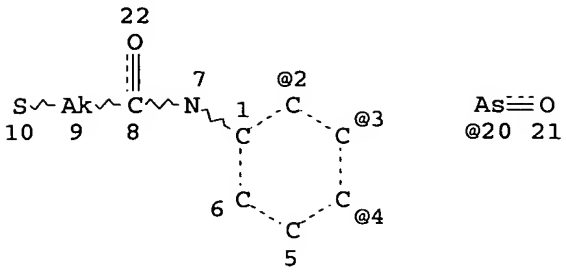
L14             STR
```




```
VPA 20-2/3/4 U
NODE ATTRIBUTES:
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS  13

STEREO ATTRIBUTES: NONE
L16          23 SEA FILE=REGISTRY SSS FUL L14

100.0% PROCESSED     182 ITERATIONS                          23 ANSWERS
SEARCH TIME: 00.00.01



     (FILE 'HOME' ENTERED AT 12:10:52 ON 14 JUL 2005)

     FILE 'REGISTRY' ENTERED AT 12:11:02 ON 14 JUL 2005
L1              STR
L2            0 SEA SSS SAM L1
L3              STR L1
L4           50 SEA SSS SAM L3
L5              STR L1
L6            0 SEA SSS SAM L5

     FILE 'CAPLUS' ENTERED AT 12:17:40 ON 14 JUL 2005
                SET LINE 250
                SET DETAIL OFF
                E US2003-088540/AP,PRN 25
                E US2002-088540/AP,PRN 25
                SET LINE LOGIN
                SET DETAIL LOGIN
                E HOGG P?/AU
L7          159 SEA ABB=ON  HOGG P?/AU
L8           15 SEA ABB=ON  DONOGHUE N?/AU
L9          159 SEA ABB=ON  L7 AND L7
L10           7 SEA ABB=ON  L7 AND L8
                D SCAN TI
L11           2 SEA ABB=ON  MEMBRANE/TI AND L10
                D SCAN
                SEL RN
```

```
     FILE 'REGISTRY' ENTERED AT 12:19:25 ON 14 JUL 2005
L12          90 SEA ABB=ON  (70-18-8/BI OR 172777-84-3/BI OR 498-40-8/BI OR
                56-84-8/BI OR 56-86-0/BI OR 19246-18-5/BI OR 10028-17-8/BI OR
                10043-66-0/BI OR 107-96-0/BI OR 1077-28-7/BI OR 1119-62-6/BI
                OR 1122-90-3/BI OR 117525-19-6/BI OR 13967-65-2/BI OR 14119-09-
                6/BI OR 14133-76-7/BI OR 14158-31-7/BI OR 14265-75-9/BI OR
                14378-26-8/BI OR 14596-37-3/BI OR 14762-75-5/BI OR 148356-00-7/
                BI OR 148356-01-8/BI OR 14913-89-4/BI OR 14998-63-1/BI OR
                15117-53-0/BI OR 15715-08-9/BI OR 15749-66-3/BI OR 15750-15-9/B
                I OR 15757-86-5/BI OR 15766-00-4/BI OR 2321-07-5/BI OR
                331722-70-4/BI OR 331722-76-0/BI OR 331722-77-1/BI OR 331722-78
                -2/BI OR 331722-79-3/BI OR 331722-80-6/BI OR 331722-81-7/BI OR
                331722-82-8/BI OR 331722-83-9/BI OR 331722-84-0/BI OR 331722-86
                -2/BI OR 331722-87-3/BI OR 331722-88-4/BI OR 331722-90-8/BI OR
                331722-91-9/BI OR 331815-00-0/BI OR 331815-01-1/BI OR 331815-02
                -2/BI OR 331815-03-3/BI OR 331815-04-4/BI OR 331815-05-5/BI OR
                331815-06-6/BI OR 331815-07-7/BI OR 331815-08-8/BI OR 331815-09
                -9/BI OR 331815-10-2/BI OR 3416-24-8/BI OR 3483-12-3/BI OR
                37318-49-3/BI OR 51146-91-9/BI OR 56-87-1/BI OR 57757-57-0/BI
                OR 58-85-5/BI OR 59-52-9/BI OR 598-21-0/BI OR 6066-82-6/BI OR
                66-84-2/BI OR 74-79-3/BI OR 89889-52-1/BI OR 98-50-0/BI OR
                123740-08-9/BI OR 123761-26-2/BI OR 331722-71-5/BI OR 331722-72
                -6/BI OR 331722-73-7/BI OR 331722-74-8/BI OR 331722-85-1/BI OR
                331722-89-5/BI OR 331746-49-7/BI OR 461644-47-3/BI OR 461644-49
                -5/BI OR 463313-69-1/BI OR 463313-70-4/BI OR 463313-71-5/BI OR
                52-90-4/BI OR 67278-31-3/BI OR 69-78-3/BI OR 7440-38-2/BI)
L13          37 SEA ABB=ON  L12 AND AS/ELS
L14             STR L5
L15           1 SEA SSS SAM L14
                D SCAN
L16          23 SEA SSS FUL L14
                SAVE TEMP L16 KOS540FULL/A

     FILE 'CAPLUS' ENTERED AT 12:21:02 ON 14 JUL 2005
L17          13 SEA ABB=ON  L16

     FILE 'REGISTRY' ENTERED AT 12:21:16 ON 14 JUL 2005
L18             ANALYZE L16 1- LC :       6 TERMS
                D

     FILE 'REGISTRY' ENTERED AT 12:21:56 ON 14 JUL 2005
                D STAT QUE L16

     FILE 'CAPLUS, USPATFULL, TOXCENTER' ENTERED AT 12:21:56 ON 14 JUL 2005
L19          23 SEA ABB=ON  L16
L20          15 DUP REM L19 (8 DUPLICATES REMOVED)
                     ANSWERS '1-13' FROM FILE CAPLUS
                     ANSWERS '14-15' FROM FILE USPATFULL
                D IBIB ED ABS HITSTR 1-15

     FILE 'HOME' ENTERED AT 12:22:16 ON 14 JUL 2005

     FILE 'CAPLUS' ENTERED AT 12:22:41 ON 14 JUL 2005
L21           6 SEA ABB=ON  L10 AND L17

     FILE 'STNGUIDE' ENTERED AT 12:22:49 ON 14 JUL 2005
                D SAVED
                D STAT QUE L16
```

FILE HOME

FILE REGISTRY
Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

STRUCTURE FILE UPDATES: 13 JUL 2005 HIGHEST RN 854992-86-2
DICTIONARY FILE UPDATES: 13 JUL 2005 HIGHEST RN 854992-86-2

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH JANUARY 18, 2005

Please note that search-term pricing does apply when conducting SmartSELECT searches.

****
* *
* The CA roles and document type information have been removed from *
* the IDE default display format and the ED field has been added, *
* effective March 20, 2005. A new display format, IDERL, is now *
* available and contains the CA role and document type information. *
* *
****

Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. For more information enter HELP PROP at an arrow prompt in the file or refer to the file summary sheet on the web at:
http://www.cas.org/ONLINE/DBSS/registryss.html

FILE CAPLUS

FILE COVERS 1907 - 14 Jul 2005 VOL 143 ISS 3
FILE LAST UPDATED: 13 Jul 2005 (20050713/ED)

New CAS Information Use Policies, enter HELP USAGETERMS for details.

This file contains CAS Registry Numbers for easy and accurate substance identification.

FILE USPATFULL
FILE COVERS 1971 TO PATENT PUBLICATION DATE: 12 Jul 2005 (20050712/PD)
FILE LAST UPDATED: 12 Jul 2005 (20050712/ED)
HIGHEST GRANTED PATENT NUMBER: US6918136
HIGHEST APPLICATION PUBLICATION NUMBER: US2005150027
CA INDEXING IS CURRENT THROUGH 12 Jul 2005 (20050712/UPCA)
ISSUE CLASS FIELDS (/INCL) CURRENT THROUGH: 12 Jul 2005 (20050712/PD)
REVISED CLASS FIELDS (/NCL) LAST RELOADED: Jun 2005

USPTO MANUAL OF CLASSIFICATIONS THESAURUS ISSUE DATE: Jun 2005

>>> USPAT2 is now available. USPATFULL contains full text of the <<<
>>> original, i.e., the earliest published granted patents or <<<
>>> applications. USPAT2 contains full text of the latest US <<<
>>> publications, starting in 2001, for the inventions covered in <<<
>>> USPATFULL. A USPATFULL record contains not only the original <<<
>>> published document but also a list of any subsequent <<<
>>> publications. The publication number, patent kind code, and <<<
>>> publication date for all the US publications for an invention <<<
>>> are displayed in the PI (Patent Information) field of USPATFULL <<<
>>> records and may be searched in standard search fields, e.g., /PN, <<<
>>> /PK, etc. <<<

>>> USPATFULL and USPAT2 can be accessed and searched together <<<
>>> through the new cluster USPATALL. Type FILE USPATALL to <<<
>>> enter this cluster. <<<
>>> <<<
>>> Use USPATALL when searching terms such as patent assignees, <<<
>>> classifications, or claims, that may potentially change from <<<
>>> the earliest to the latest publication. <<<

This file contains CAS Registry Numbers for easy and accurate substance identification.

FILE TOXCENTER

FILE COVERS 1907 TO 12 Jul 2005 (20050712/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TOXCENTER has been enhanced with new files segments and search fields. See HELP CONTENT for more information.

TOXCENTER thesauri in the /CN, /CT, and /MN fields incorporate the MeSH 2005 vocabulary. See http://www.nlm.nih.gov/mesh/ and http://www.nlm.nih.gov/pubs/techbull/nd04/nd04_mesh.html for a description of changes.

FILE STNGUIDE
FILE CONTAINS CURRENT INFORMATION.
LAST RELOADED: Jul 8, 2005 (20050708/UP).

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